

Safety Data Sheet



Health	1
Fire	2
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	METAL WAX
Chemical Name:	Wax Blend
Trade Name:	Metal Wax
Product Use:	Sealer
Distributor's Name:	Sculpt Nouveau
Distributor's Address:	1155 Industrial Ave. Escondido, CA 92029
Emergency Phone:	CHEMTREC 800-424-9300 U.S. and Canada; 1-703-527-3887 International
Business Phone:	800-728-5787

2. HAZARDS IDENTIFICATION

Hazard Identification:	<p>This product is classified as a hazardous substance as assessed according to the classification criteria of [NOHSC: 1088 (2004)] and ADG Code (Australia). CAUTION! COMBUSTIBLE. HARMFUL IF SWALLOWED. Hazard Statements (H): H302 - Harmful or fatal if swallowed. H314 - Causes eye damage. H228 - Flammable liquid Precautionary Statements (P): P220 - Keep away from heat/sparks/open flames, hot surfaces, No smoking. P240 - Ground/bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting/equipment. P264 - Wash thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves. P301+P310 - IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. P321 - Specific treatment, see Section 4 of this safety data sheet. P363 - Wash contaminated clothing before reuse. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. P501 - Dispose of contents/container to licensed treatment, storage and disposal facility.</p>		
Effects of Exposure:	<p>Eyes: May cause mild eye irritation. Skin: May cause mild skin irritation Ingestion: Swallowing small amounts during normal use is not likely to cause harmful effects. Inhalation: Breathing in small amounts of this material during normal handling is not likely to cause harm.</p>		
Symptoms of Overexposure:	<p>Eyes: Redness, burning, irritation, and swelling around eyes. Eye damage. Skin: Redness, burning, itching, rash, and scaling of the skin (dermatitis). Ingestion: Nausea and vomiting if a large amount is ingested. Inhalation: Breathing in large amounts could result in dizziness, nausea, and vomiting.</p>		
Acute Health Effects:	Severe or permanent eye damage. Irritation if on skin. Swallowing large amounts of this material may be harmful and could result in irritation of the gastrointestinal tract. Adverse symptoms include nausea and vomiting.		
Chronic Health Effects:	Severe or permanent eye damage.		
Target Organs:	Eyes, skin, respiratory system.		

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³) ppm							
			ACGIH		OSHA			NOHSC		
			TLV	STEL	TWA	STEL	IDLH	TWA	STEL	
Carnauba wax - non hazardous	8015-86-9	60-100	NE	NE	NE	NE	NA	NA	NF	
Microcrystalline wax - non hazardous	63231-60-7	60-100	NE	NE	NE	NE	NA	NA	NF	
Stoddard Solvent	8052-41-3	10-30	525	NA	2900	NA	NA	350	NF	
1-chloro-4 (trifluoromethyl)	98-56-6	7-13	NA	NA	NA	NA	NA	NF	NF	
Gum Turpentine	9005-90-7	1-5	20	NA	100	NA	NA	NF	NF	
Solvent Based Colors	13463-67-7	1-5	NA	NA	NA	NA	NA	NF	NF	
Proprietary non-hazardous ingredients			NA	NA	NA	NA	NA	NF	NF	

4. FIRST AID MEASURES

First Aid:	<p>Ingestion: DO NOT INDUCE VOMITING. Contact nearest Poison Control Center for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.</p> <p>Eyes: If product gets in eyes, flush eyes thoroughly with large amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If the eyes or face become swollen during or following use, consult a physician or emergency room immediately.</p> <p>Skin: Remove contaminated clothing and wash affected areas with soap and water. If discomfort or a skin reaction occurs, contact a physician. Do not wear contaminated clothing until cleaned.</p> <p>Inhalation: Remove victim to fresh air at once. Seek immediate medical attention if breathing is difficult.</p> <p>To Physician: Administration of adsorbents such as activated charcoal may be of value. Gastric lavage may be effective when performed by a physician within 4 hours of ingestion.</p>
Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the eyes or respiratory system or impaired kidney function may be more susceptible to the effects of this substance.

5. FIREFIGHTING MEASURES

Fire and Explosion Hazard :	May be combustible at high temperatures.
Extinguishing Methods :	Use carbon dioxide, foam, water fog or spray.
Firefighting Procedures :	As with any fire, firefighters should wear appropriate protective equipment including a NIOSH approved or equivalent self contained breathing apparatus and protective clothing. Fight fires as for surrounding materials. Water may be used to cool containers. If water is used, fog nozzles are preferred.

6. ACCIDENTAL RELEASE MEASURES

Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate personal protective equipment (PPE). Use safety glasses and face shield, gloves and other protective clothing to prevent skin contact. Insure adequate ventilation. Eliminate all source (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind. Absorb spillage with inert material and dispose of in accordance of E.P.A. and other local, state and federal authorities. For waste disposal methods, consult federal, state and local regulations. Place in closed containers. Dispose of product in accordance with these regulations.
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7. HANDLING & STORAGE INFORMATION

Work and Hygiene Practices:	Avoid breathing vapors. Avoid eye and skin contact. Wear protective equipment when handling product. Keep out of the reach of children. Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Do not expose to heat and flame, keep away from sparks. Use only in ventilated areas. Immediately clean up and decontaminate any spills or residues.
Storage and Handling:	Use and store in a cool, dry, well ventilated location (e.g., local exhaust ventilation, fans), away from heat and sources of ignition, keep away from sparks. Ground and bond all transfer equipment.
Special Precautions:	Empty containers may retain hazardous product residues. Do not reuse empty containers for other purposes.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Ventilation and Engineering Controls:	Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Ensure appropriate equipment is available (eye wash station, sink, etc.).
Respiratory Protection:	NIOSH/OSHA approved respirator types suitable for materials in section 2 recommended. Approved chemical or mechanical filters recommended when ventilation is restricted. Do not breathe vapors or spray mist. Wear appropriate respirator during and after application unless air monitoring records vapor/mist levels below acceptable limits. Follow manufacturer directions for use.
Eye Protection:	Safety glasses with side shields must be used when handling this product. A face shield is also recommended.
Hand Protection:	Wear protective, chemical-resistant gloves, (e.g., neoprene) when handling this product.
Body Protection:	A chemical resistant apron and protective clothing are recommended when handling or using this product.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Soft semi-solid or liquid with varied colors according to wax chosen
Odor:	Solvent odor
Odor Threshold:	N/A
pH:	N/A
Melting point:	120°
Boiling Point/Range:	160°C (320°F)
Flashpoint:	40°C (104°F) TCC
Flammability Limits:	N/A
Vapor Pressure:	2.0
Vapor Density:	4.7 (Air = 1)
Relative Density:	N/A
Solubility:	Negligible
Evaporation Rate:	.21 (N-Butyl acetate = 1)
VOC	(g/l): 650

10. STABILITY & REACTIVITY

Stability:	Stable at normal temperatures.
Hazardous Decomposition:	Thermal decomposition or burning may produce carbon dioxide, carbon monoxide, various hydrocarbons.
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Heat, open flames and other ignition sources.
Incompatible Substances:	Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation: Yes	Absorption: Yes	Ingestion: Yes	
Toxicity Data:	1-chloro-4 (trifluoromethyl): LD ₅₀ (oral, rat) = > 6.8 g/kg; LD ₅₀ (dermal, rabbit) = 2.7g/kg.			
Acute Toxicity:	See section Section 2 for acute toxicity			
Chronic Toxicity:	See section Section 2 for chronic toxicity			
Suspected Carcinogen:	This product does not contain, known to the State of CA to cause cancer.			
Reproductive Toxicity:	This product does not contain chemicals known to the State of CA to cause birth defects or other reproductive harm.			
Mutagenicity:	This product is not reported to cause mutagenic effects in humans or animals.			
Embryotoxicity:	This product is not reported to cause embryotoxic effects in humans.			
Teratogenicity:	No data available			
Irritancy of Product:	See Section 2			
Biological Exposure Indices:	NE			
Physician Recommendations:	Treat symptomatically			

12. ECOLOGICAL INFORMATION

Environmental Stability	No data available
Effects on Plants & Animals:	No data available
Effects on Aquatic Life:	Not toxic to aquatic organisms up to water solubility. May adsorb to sediments and possibly cause toxic effects to aquatic organisms. Slightly biodegradable in water-based tests due to low water solubility. Bioaccumulative Potential: No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be provided by a licensed facility or waste hauler.
Special Considerations:	N/A

14. TRANSPORTATION INFORMATION

49 CFR (GND) IATA (AIR) IMDG (OCN) TDGR (Canadian GND) ADR/RID (EU) SCT (MEXICO) ADGR (AUS)	UN1268, PETROLEUM DISTILLATES, n.o.s., 3, III
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15. REGULATORY INFORMATION

SARA Reporting Requirements:	This product does not contain substances subject to SARA Title III, section 313 reporting requirements.
SARA Threshold Planning Quantity	N/A
TSCA Inventory Status:	All components of this product are listed on the TSCA Inventory.
Federal and State Regulations:	The following states list Stoddard Solvent on their Right-to-Know lists: MA, NY, NJ, PA
Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are listed on the Priorities Substances List. WHMIS Class B3(Combustible Liquid), with a flash point between 37.8°C and 93.3°C.
CERCLA Reportable Quantity:	
Other Federal Requirements:	N/A
Other Requirements:	The primary components of this product are listed in Annex 1 of EU Directive 67/548/EEC. Flammable. Irritating to eyes, respiratory tract and skin. Keep out of reach of children. Keep container tightly closed. Keep container in a well ventilated place. Keep away from sources of ignition. No smoking. Do not breathe fumes/mists/vapor spray.

16. OTHER INFORMATION

Other Information:	DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAY. Flammable liquid. May cause an allergic skin reaction. Keep away from heat/sparks/open flames/hot surfaces. No Smoking.
Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Sculpt Nouveau's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
Prepared For:	Sculpt Nouveau 1155 Industrial Ave. Escondido, CA 92029 USA Tel: 760 432 8242 Fax: 760-741-1074 www.sculptnouveau.com

Safety Data Sheet




Health	2
Fire	3
Reactivity	0
Personal Protection	H

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:	CLEAR GUARD
Chemical Name:	Resin Solution
Trade Name:	CLEAR GUARD PROTECTIVE LACQUER
Product Use:	Clear Sealer
Distributor's Name:	Sculpt Nouveau
Distributor's Address:	1155 Industrial Ave. Escondido, CA 92029
Emergency Phone:	CHEMTREC 800-424-9300 U.S. and Canada; 1-703-527-3887 International
Business Phone:	800-728-5787

2. HAZARDS IDENTIFICATION

Hazard Identification:	<p>This product is classified as a hazardous substance as assessed in accordance with OSHA 29 CFR 1910.1200.</p> <p>DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAY. FLAMMABLE LIQUID AND VAPOR. MAY CAUSE AN ALLERGIC SKIN REACTION.</p> <p><u>Hazard Statements</u> (H): H317 - May cause allergic skin reaction. H226 Flammable liquid and vapor.</p> <p><u>Precautionary Statements</u> (P): P210 - Keep/Store away from heat/sparks/open flames/hot surfaces - No Smoking. P240 - Ground/bond container and receiving equipment.</p> <p>P233 - Keep container tightly closed. P243 - Take precautionary measures against static charge. P280 - Wear protective gloves/eye protection. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P301 - Do NOT induce vomiting. P261 - Avoid breathing mist/sprays. P272 - Contaminated work clothing should not be allowed out of the workplace. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical medical /attention. P321 - Specific treatment - see section 4 of this SDS. P370+P378 - In case of fire: Use carbon dioxide, foam or dry chemical fire extinguisher. P363 - Wash contaminated clothing before reuse. P403+P235 - Store in a cool, well ventilated place, keep cool. P501 - Dispose of contents/container to licensed treatment storage facility.</p>	
Effects of Exposure:	<p>Eyes: Irritation upon direct contact.</p> <p>Skin: Irritation and possible dermatitis.</p> <p>Ingestion: Irritation to gastrointestinal tract..</p> <p>Inhalation: Inhalation of high vapor concentrations may cause CNS effects, headache, dizziness.</p>	
Symptoms of Overexposure:	<p>Eyes: Redness, burning, irritation, and swelling around eyes.</p> <p>Skin: Redness, burning, itching, rash, and scaling of the skin (dermatitis).</p> <p>Ingestion: Nausea and vomiting, severe abdominal pain. Harmful or fatal if ingested.</p> <p>Inhalation: Coughing, wheezing, swelling of throat, irritation in mucous membranes, difficulty breathing.</p>	
Acute Health Effects:	May be fatal if swallowed and enters airways. May cause an allergic skin reaction. May be harmful if swallowed. Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, kidney effects	
Chronic Health Effects:	May damage the nervous system, kidney and/or liver.	
Target Organs:	Eyes, skin, lungs.	

3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	%	EXPOSURE LIMITS IN AIR (mg/m ³) ppm							
			ACGIH		OSHA			NOHSC		
			TLV	STEL	TWA	STEL	IDLH	TWA	STEL	
Tert-Butyl Acetate	540-88-5	10-50	200	150	200	NA	1500	200	NF	
Parachlorobenzotrifluoride	98-58-6	10-50	NE	NE	NE	NE	NA	NA	NF	
Modified Resin		10 - 70	NA	NA	NA	NA	NA	NA	NA	

4. FIRST AID MEASURES

First Aid:	<p>Ingestion: DO NOT INDUCE VOMITING. Contact nearest Poison Control Center for assistance and instructions. Seek immediate medical attention. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.</p> <p>Eyes: If product gets in eyes, flush eyes thoroughly with large amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If the eyes or face become swollen during or following use, consult a physician or emergency room immediately.</p> <p>Skin: Remove contaminated clothing and wash affected areas with soap and water. If discomfort or a skin reaction occurs, contact a physician. Do not wear contaminated clothing until cleaned.</p> <p>Inhalation: Remove victim to fresh air at once. Seek immediate medical attention if breathing is difficult.</p>
Medical Conditions Aggravated by Exposure:	Pre-existing dermatitis, other skin conditions, and disorders of the eyes or respiratory system or impaired kidney function may be more susceptible to the effects of this substance.

5. FIREFIGHTING MEASURES

Fire and Explosion Hazard :	Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the materials handling point. Never use welding or cutting torch on or near drum (even empty) because material (even just residue) can ignite explosively.
Extinguishing Methods :	Use dry powder, foam, carbon dioxide.
Firefighting Procedures :	As with any fire, firefighters should wear appropriate protective equipment including a NIOSH approved or equivalent self contained breathing apparatus and protective clothing. Fight fires as for surrounding materials. Water may be used to cool containers. If water is used, fog nozzles are preferred.

6. ACCIDENTAL RELEASE MEASURES

Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate personal protective equipment (PPE). Use safety glasses and face shield, gloves and other protective clothing to prevent skin contact. Insure adequate ventilation. Eliminate all source of sparks, (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind. Absorb spillage with inert material and dispose of in accordance of E.P.A. and other local, state and federal authorities. For waste disposal methods, consult federal, state and local regulations. Place in closed containers. Dispose of product in accordance with these regulations.
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7. HANDLING & STORAGE INFORMATION

Work and Hygiene Practices:	Avoid breathing mists or spray. Avoid eye and skin contact. Wear protective equipment when handling product. Keep out of the reach of children. Do not eat, drink or smoke when handling this product. Wash thoroughly after handling. Do not expose to heat and flame, keep away from sparks. Use only in ventilated areas. Immediately clean up and decontaminate any spills or residues.
Storage and Handling:	Use and store in a cool, dry, well ventilated location (e.g., local exhaust ventilation, fans), away from heat and sources of ignition, keep away from sparks. Ground and bond all transfer equipment.
Special Precautions:	Empty containers may retain hazardous product residues. Do not reuse empty containers for other purposes.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

Ventilation and Engineering Controls:	Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product. Ensure appropriate equipment is available (eye wash station, sink, etc.).
Respiratory Protection:	NIOSH/OSHA approved respirator types suitable for materials in section 2 recommended. Approved chemical or mechanical filters recommended when ventilation is restricted. Do not breathe vapors or spray mist. Wear appropriate respirator during and after application unless air monitoring records vapor/mist levels below acceptable limits. Follow manufacturer directions for use.
Eye Protection:	Safety glasses with side shields must be used when handling this product. A face shield is also recommended.
Hand Protection:	Wear protective, chemical-resistant gloves, (e.g., neoprene) when handling this product.
Body Protection:	A chemical resistant apron and protective clothing are recommended when handling or using this product.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Colorless liquid
Odor:	Solvent odor
Odor Threshold:	N/A
pH:	N/A
Melting and Freezing Point:	N/A
Boiling Point/Range:	111°C - 177°C (231-350°F)
Flashpoint:	7.2°C (45°F)
Flammability Limits:	No data available
Vapor Pressure:	No data available
Vapor Density:	No data available
VOC:	Zero - Exempt
Solubility:	Insoluble in water
Evaporation Rate:	No data available

10. STABILITY & REACTIVITY

Stability:	Stable at normal temperatures and pressures.
Hazardous Decomposition:	Oxides of carbon, hydrocarbons
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Excessive heat, shock, friction, build up of static electricity
Incompatible Substances:	Strong oxidizers, bases, acids, reducing agents, metals.

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation: Yes	Absorption: Yes	Ingestion: Yes	
Toxicity Data:	<u>Tert-butyl Acetate</u> : LD ₅₀ (oral, rat) = 2.23 mg/l LD ₅₀ (dermal, rabbit) = 2.7g/kg, <u>Parachlorobenzotrifluoride</u> : LD ₅₀ (oral, rat) = > 2.23 mg/l:			
Acute Toxicity:	See section Section 2 for acute toxicity			
Chronic Toxicity:	See section Section 2 for chronic toxicity			
Suspected Carcinogen:	NA			
Reproductive Toxicity:	No data available			
Mutagenicity:	This product is not reported to cause mutagenic effects in humans.			
Embryotoxicity:	This product is not reported to cause embryotoxic effects in humans.			
Teratogenicity:	This product is not reported to cause teratogenic effects in humans.			
Irritancy of Product:	See Section 2			
Biological Exposure Indices:	NE			
Physician Recommendations:	Treat symptomatically			

12. ECOLOGICAL INFORMATION

Environmental Stability	No data available
Effects on Plants & Animals:	No data available
Effects on Aquatic Life:	<u>Tert-Butyl Acetate</u> : LC ₅₀ (pimephales primelaws, 96 h) = 296-362 mg/l, LC ₅₀ (Leuciscus idus melantus, 48 h) = 423 mg/l <u>Parachlorobenzotrifluoride</u> : LC ₅₀ (Oncorhynchus mykiss, 96 h) = 13.5 mg/l, LC ₅₀ (Lepomis macrochirus, 96 h) = 12 mg/l

13. DISPOSAL CONSIDERATIONS

Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Contact the appropriate agency for specific information. Treatment, transport, storage and disposal of hazardous waste must be provided by a licensed facility or waste hauler.
Special Considerations:	N/A

14. TRANSPORTATION INFORMATION

49 CFR (GND) IATA (AIR) IMDG (OCN) TDGR (Canadian GND) ADR/RID (EU) SCT (MEXICO) ADGR (AUS)	UN1866 RESIN SOLUTION, 3, III
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15. REGULATORY INFORMATION

SARA Reporting Requirements:	This product contains <u>Parachlorobenzotrifluoride</u> , a substance subject to SARA Title III, section 313 reporting requirements.
SARA Threshold Planning Quantity	NA
TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
Federal and State Regulations:	<u>Tert-Butyl Acetate</u> is found on the following state criteria lists: Right-to-Know List, MA, NJ, PA RI. No other ingredients in this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: Massachusetts Hazardous Substances List, New Jersey Right-to-Know List, Pennsylvania Hazardous Substances List, and Rhode Island Right-to-Know list
Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are listed on the Priorities Substances List. WHMIS Class B2(Flammable Liquid).
CERCLA Reportable Quantity:	<u>Tert-Butyl Acetate</u> : 5000 lbs.
Other Federal Requirements:	NA
Other Requirments:	The primary components of this product are listed in Annex 1 of EU Directive 67/548/EEC. Flammable. Irritating to eyes, respiratory tract and skin. Keep out of reach of children. Keep container tightly closed. Keep container in a well ventilated place. Keep way from sources of ignition. No smoking. Do not breathe fumes/mists/vapor spray.

16. OTHER INFORMATION

Other Information:	DANGER! MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAY. Flammable liquid and vapor. May cause an allergic skin reaction. Keep away from heat/sparks/open flames/hot surfaces. No Smoking.
Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Sculpt Nouveau's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
Prepared For:	Sculpt Nouveau 1155 Industrial Ave. Escondido, CA 92029 USA Tel: 760 432 8242 Fax: 760-741-1074 www.sculptnouveau.com

Prismatic Powders U-Series

Version number: 1.0

Date of compilation: 12/15/2021

SECTION 1: Identification

1.1 Product identifier

Trade name

Prismatic Powders U-Series

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

General use

1.3 Details of the supplier of the safety data sheet

NIC Industries, Inc
7050 6th St.
White City Oregon 97503
United States

Telephone: 866-774-7628
e-mail: sds@nicindustries.com
Website: www.nicindustries.com

1.4 Emergency telephone number

Emergency information service

1-800-633-8253 (USA & Canada) or 001-1-801-629-0667 (International)

The information contained in this Safety Data Sheet (SDS) is, to the best of our knowledge, true and accurate and presented in good faith. NIC Industries, Inc. makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. Because many factors may affect processing or application/use of this product, this data is offered solely for the user's consideration, investigation and verification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or process. Regulatory requirements are subject to change and may differ from one location to another. It is the responsibility of the buyer/user to ensure its activities comply with all local, state and federal regulations.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	Skin sensitization	1	Skin Sens. 1	H317
A.5	Germ cell mutagenicity	1B	Muta. 1B	H340
A.6	Carcinogenicity	1A	Carc. 1A	H350
A.9	Specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure.

2.2 Label elements

Prismatic Powders U-Series

Version number: 1.0

Date of compilation: 12/15/2021

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word **DANGER**

- Pictograms

GHS05, GHS07, GHS08



- Hazard statements

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H340	May cause genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear eye protection/face protection.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, Carbon black

2.3 Other hazards

Hazards not otherwise classified

Contains epoxy constituents. May produce an allergic reaction.
May be harmful if swallowed (GHS category 5: acutely toxic - oral).
May be harmful if inhaled (GHS category 5: acutely toxic - inhalation).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Prismatic Powders U-Series

Version number: 1.0

Date of compilation: 12/15/2021

Name of substance	Identifier	Wt%
Titanium dioxide	CAS No 13463-67-7	25 – < 50
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	CAS No 2451-62-9	10 – < 25
Aluminium hydroxide	CAS No 21645-51-2	1 – < 5
Carbon black	CAS No 1333-86-4	1 – < 5

* Although TGIC is listed as a constituent for Prismatic Powders U-Series, TGIC is not present in every color in the series. To find out if a color contains TGIC please contact NIC Industries for verification.

** Trade Secret: In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200(i) and in accordance with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), the specific identity and/or exact percentage (concentration) of the composition has been withheld as a "Trade Secret."

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

None.

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SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, ABC-powder

5.2 Special hazards arising from the substance or mixture

Deposited combustible dust has considerable explosion potential.

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Take up mechanically

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

- Ventilation requirements

Use local and general ventilation.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	Particulates not otherwise classified		REL							appx-D	NIOSH REL
US	Particulates not otherwise classified (PNOC)		PEL	1,766	15					partml, i, dust	29 CFR 1910.1000
US	Particulates not otherwise classified (PNOC)		PEL	529.5	5					partml, r, dust	29 CFR 1910.1000
US	Particulates not otherwise regulated		PEL (CA)		10					dust	Cal/ OSHA PEL
US	Particulates not otherwise regulated		PEL (CA)		5					r	Cal/ OSHA PEL

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	Carbon black	1333-86-4	PEL (CA)		3.5						Cal/ OSHA PEL
US	Carbon black	1333-86-4	PEL		3.5						29 CFR 1910.1000
US	Carbon black	1333-86-4	REL		3.5 (10 h)					appx-A, appx-C	NIOSH REL
US	Carbon black	1333-86-4	TLV®		3					i	ACGIH® 2021
US	Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)	1333-86-4	REL		0.1 (10 h)					PAHs, appx-A, appx-C	NIOSH REL
US	Titanium dioxide	13463-67-7	TLV®		10						ACGIH® 2021
US	Titanium dioxide	13463-67-7	PEL		15					i, dust	29 CFR 1910.1000
US	Titanium dioxide	13463-67-7	REL							lowest, appx-A	NIOSH REL
US	Aluminium, insoluble compounds	21645-51-2	TLV®		1					r	ACGIH® 2021
US	1,3,5-triglycidyl-s-triazinetrione	2451-62-9	PEL (CA)		0.005						Cal/ OSHA PEL
US	1,3,5-triglycidyl-s-triazinetrione	2451-62-9	TLV®		0.05						ACGIH® 2021

Notation

appx-A	NIOSH Potential Occupational Carcinogen (Appendix A)
appx-C	Appendix C - Supplementary Exposure Limits
appx-D	see Appendix D - Substances with No Established RELs
Ceiling-C	ceiling value is a limit value above which exposure should not occur
dust	as dust
i	inhalable fraction
lowest	exposure by all routes should be carefully controlled to levels as low as possible
PAHs	as polycyclic aromatic hydrocarbons (PAHs)
part/ml	particles/ml
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

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Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Solid (powder)
Color	Not determined
Odor	Characteristic

Other safety parameters

pH (value)	Not applicable
Melting point/freezing point	Not determined
Initial boiling point and boiling range	>240 °C at 103,500 Pa
Flash point	Not applicable
Evaporation rate	Not determined
Flammability (solid, gas)	This material is combustible, but will not ignite readily
Explosion limits of dust clouds	Not determined
Vapor pressure	<0.007 Pa at 20 °C
Density	Not determined

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Vapor density	Not available
Relative density	Not available
Solubility(ies)	Not determined

Partition coefficient

- n-octanol/water (log KOW)	Not available
Auto-ignition temperature	183 °C
Viscosity	Not relevant (solid matter)
Explosive properties	None
Oxidizing properties	None

9.2	Other information	There is no additional information
------------	--------------------------	------------------------------------

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed or if inhaled.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	oral	>400 mg/kg
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	inhalation: dust/mist	1.14 mg/l/4h
Aluminium hydroxide	21645-51-2	inhalation: dust/mist	1.9 mg/l/4h

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	2B	
Titanium dioxide	13463-67-7	2B	

Legend

2B Possibly carcinogenic to humans

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National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	Known to be human carcinogens	1st Report on Carcinogens

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

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Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- | | |
|--|---|
| 14.1 UN number | not subject to transport regulations |
| 14.2 UN proper shipping name | not relevant |
| 14.3 Transport hazard class(es) | not assigned |
| 14.4 Packing group | not assigned |
| 14.5 Environmental hazards | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 Special precautions for user | |
| There is no additional information. | |
| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code | |
| The cargo is not intended to be carried in bulk. | |

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)

All ingredients are listed.

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

None of the ingredients are listed.

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

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Clean Air Act

None of the ingredients are listed.

Right to Know Hazardous Substance List

- Toxic or Hazardous Substance List (MA-TURA)

none of the ingredients are listed

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
Carbon black	1333-86-4	A, N, O, R, *	
Titanium dioxide	13463-67-7	A	

Legend

- * Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).
- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- N National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
- O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division
- R International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Carbon black	1333-86-4		CA
Titanium dioxide	13463-67-7		
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9		

Legend

CA Carcinogenic

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	CAS No	Classification
Carbon black	1333-86-4	
Titanium dioxide	13463-67-7	

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- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
Carbon black	1333-86-4	T
Titanium dioxide	13463-67-7	T

Legend

T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Remarks	Type of the toxicity
Carbon black	1333-86-4	Airborne, unbound particles of respirable size	Cancer
Titanium dioxide	13463-67-7	Airborne, unbound particles of respirable size	Cancer

Industry or sector specific available guidance(s)

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	Material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	Material that, under emergency conditions, can cause serious or permanent injury
Instability	0	Material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	All ingredients are listed.
CA	DSL	All ingredients are listed.
CN	IECSC	All ingredients are listed.
EU	ECSI	All ingredients are listed.
EU	REACH Reg.	All ingredients are listed.
JP	CSCL-ENCS	Not all ingredients are listed.
JP	ISHA-ENCS	Not all ingredients are listed.

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Country	Inventory	Status
KR	KECI	All ingredients are listed.
MX	INSQ	All ingredients are listed.
NZ	NZIoC	All ingredients are listed.
PH	PICCS	All ingredients are listed.
TR	CICR	All ingredients are listed.
TW	TCSI	All ingredients are listed.
US	TSCA	All ingredients are listed.

Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2021	From ACGIH®, 2021 TLVs® and BEIs® Book. Copyright 2021. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
EINECS	European Inventory of Existing Commercial Chemical Substances

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Abbr.	Descriptions of used abbreviations
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H340	May cause genetic defects.
H350	May cause cancer.



INNOVATIONS OF **NIC INDUSTRIES**

Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Prismatic Powders U-Series

Version number: 1.0

Date of compilation: 12/15/2021

Code	Text
H373	May cause damage to organs through prolonged or repeated exposure.

Prismatic Powders P-Series

Version number: 2.0

Revision: 12/08/2021

SECTION 1: Identification

1.1 Product identifier

Trade name

Prismatic Powders P-Series

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

General use

1.3 Details of the supplier of the safety data sheet

NIC Industries, Inc
7050 6th St.
White City Oregon 97503
United States

Telephone: 866-774-7628
e-mail: sds@nicindustries.com
Website: www.nicindustries.com

1.4 Emergency telephone number

Emergency information service

1-800-633-8253 (USA & Canada) or 001-1-801-629-0667 (International)

The information contained in this Safety Data Sheet (SDS) is, to the best of our knowledge, true and accurate and presented in good faith. NIC Industries, Inc. makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. Because many factors may affect processing or application/use of this product, this data is offered solely for the user's consideration, investigation and verification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or process. Regulatory requirements are subject to change and may differ from one location to another. It is the responsibility of the buyer/user to ensure its activities comply with all local, state and federal regulations.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.1I	Acute toxicity (inhal.)	4	Acute Tox. 4	H332
A.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	Skin sensitization	1	Skin Sens. 1	H317
A.5	Germ cell mutagenicity	1B	Muta. 1B	H340
A.6	Carcinogenicity	1A	Carc. 1A	H350
A.9	Specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
B.cD	Combustible dust	Comb. Dust	cD	OSHA003

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects
Delayed or immediate effects can be expected after short or long-term exposure.

Prismatic Powders P-Series

Version number: 2.0

Revision: 12/08/2021

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word **DANGER**

- Pictograms

GHS05, GHS07, GHS08



- Hazard statements

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
OSHA003	May form combustible dust concentrations in air.

- Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear eye protection/face protection.
P302+P352	If on skin: Wash with plenty of water.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling

1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, Carbon black, Quartz (SiO₂), Aluminum

2.3 Other hazards

Hazards not otherwise classified

Contains epoxy constituents. May produce an allergic reaction.
May be harmful if swallowed (GHS category 5: acutely toxic - oral).

Prismatic Powders P-Series

Version number: 2.0

Revision: 12/08/2021

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%
Titanium dioxide	CAS No 13463-67-7	25 – < 50
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	CAS No 2451-62-9	10 – < 25
Aluminum	CAS No 7429-90-5	10 – < 25
Carbon black	CAS No 1333-86-4	5 – < 10
2,4,7,9-tetramethyldec-5-yne-4,7-diol	CAS No 126-86-3	1 – < 5
Quartz (SiO ₂)	CAS No 14808-60-7	< 1

* Although TGIC is listed as a constituent for Prismatic Powders P-Series, TGIC is not present in every color in the series. To find out if a color contains TGIC please contact NIC Industries for verification.

** Trade Secret: In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200(i) and in accordance with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), the specific identity and/or exact percentage (concentration) of the composition has been withheld as a "Trade Secret."

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

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4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media

Water, Foam, ABC-powder

5.2 Special hazards arising from the substance or mixture

Deposited combustible dust has considerable explosion potential.

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂)**5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	Particulates not otherwise classified		REL							appx-D	NIOSH REL
US	Particulates not otherwise classified (PNOC)		PEL	1,766	15					partml, i, dust	29 CFR 1910.1000
US	Particulates not otherwise classified (PNOC)		PEL	529.5	5					partml, r, dust	29 CFR 1910.1000
US	Particulates not otherwise regulated		PEL (CA)		10					dust	Cal/ OSHA PEL

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	Particulates not otherwise regulated		PEL (CA)		5					r	Cal/ OSHA PEL
US	Carbon black	1333-86-4	PEL (CA)		3.5						Cal/ OSHA PEL
US	Carbon black	1333-86-4	PEL		3.5						29 CFR 1910.1000
US	Carbon black	1333-86-4	REL		3.5 (10 h)					appx-A, appx-C	NIOSH REL
US	Carbon black	1333-86-4	TLV®		3					i	ACGIH® 2021
US	Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)	1333-86-4	REL		0.1 (10 h)					PAHs, appx-A, appx-C	NIOSH REL
US	Titanium dioxide	13463-67-7	TLV®		10						ACGIH® 2021
US	Titanium dioxide	13463-67-7	PEL		15					i, dust	29 CFR 1910.1000
US	Titanium dioxide	13463-67-7	REL							lowest, appx-A	NIOSH REL
US	Quartz	14808-60-7	PEL (CA)		0.05					r	Cal/ OSHA PEL
US	Silica, crystalline - quartz	14808-60-7	PEL		0.05					r	29 CFR 1910.1000
US	Silica, crystalline - quartz	14808-60-7	REL		0.05 (10 h)					r, appx-A	NIOSH REL
US	1,3,5-triglycidyl-s-triazinetriene	2451-62-9	PEL (CA)		0.005						Cal/ OSHA PEL
US	1,3,5-triglycidyl-s-triazinetriene	2451-62-9	TLV®		0.05						ACGIH® 2021
US	Aluminium	7429-90-5	PEL		15					Al, i, dust	29 CFR 1910.1000
US	Aluminium	7429-90-5	PEL		5					Al, r, dust	29 CFR 1910.1000

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	Aluminium	7429-90-5	PEL (CA)		10					dust	Cal/ OSHA PEL
US	Aluminium	7429-90-5	REL		10 (10 h)					i	NIOSH REL
US	Aluminium	7429-90-5	PEL (CA)		5					pyro_p	Cal/ OSHA PEL
US	Aluminium	7429-90-5	PEL (CA)		5					r	Cal/ OSHA PEL
US	Aluminium	7429-90-5	REL		5 (10 h)					r	NIOSH REL
US	Aluminium	7429-90-5	TLV®		1					r	ACGIH® 2021
US	Aluminum - pyro powders and welding fumes	7429-90-5	REL		5 (10 h)					Al	NIOSH REL

Notation

Al	calculated as Al (aluminum)
appx-A	NIOSH Potential Occupational Carcinogen (Appendix A)
appx-C	Appendix C - Supplementary Exposure Limits
appx-D	see Appendix D - Substances with No Established RELs
Ceiling-C	ceiling value is a limit value above which exposure should not occur
dust	as dust
i	inhalable fraction
lowest	exposure by all routes should be carefully controlled to levels as low as possible
PAHs	as polycyclic aromatic hydrocarbons (PAHs)
part/ml	particles/ml
pyro_p	as pyrophoric powder
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

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- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Solid (powder)
Color	Not determined
Odor	Characteristic

Other safety parameters

pH (value)	Not applicable
Melting point/freezing point	Not determined
Initial boiling point and boiling range	>240 °C at 103,500 Pa
Flash point	Not applicable
Evaporation rate	Not determined
Flammability (solid, gas)	This material is combustible, but will not ignite readily
Explosion limits of dust clouds	Not determined
Vapor pressure	0.006 hPa at 20 °C
Density	Not determined
Vapor density	Not available
Relative density	Not available
Solubility(ies)	Not determined

Partition coefficient

- n-octanol/water (log KOW)	Not available
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Auto-ignition temperature	183 °C
Viscosity	Not relevant (solid matter)
Explosive properties	None
Oxidizing properties	None
9.2 Other information	There is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful if swallowed.

- Acute toxicity estimate (ATE)

Inhalation: dust/mist 4.095 mg/l/4h

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Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	Oral	>400 mg/kg
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	Inhalation: dust/mist	1.14 mg/l/4h
Aluminum	7429-90-5	Inhalation: dust/mist	>0.888 mg/l/4h
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3	Oral	>500 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	2B	
Titanium dioxide	13463-67-7	2B	
Quartz (SiO ₂)	14808-60-7	1	

Legend

1 Carcinogenic to humans
2B Possibly carcinogenic to humans

National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	Known to be human carcinogens	1st Report on Carcinogens

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

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Specific target organ toxicity - repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

- 12.1 Toxicity**
Shall not be classified as hazardous to the aquatic environment.
- 12.2 Persistence and degradability**
Data are not available.
- 12.3 Bioaccumulative potential**
Data are not available.
- 12.4 Mobility in soil**
Data are not available.
- 12.5 Results of PBT and vPvB assessment**
Data are not available.
- 12.6 Endocrine disrupting properties**
None of the ingredients are listed.
- 12.7 Other adverse effects**
Data are not available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods**
Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.
- Waste treatment of containers/packages
Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.
- Remarks**
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- | | |
|--|--------------|
| 14.1 UN number | Not assigned |
| 14.2 UN proper shipping name | Not assigned |
| 14.3 Transport hazard class(es) | Not assigned |
| 14.4 Packing group | Not assigned |

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14.5 Environmental hazards

Non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not assigned.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not assigned.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)

All ingredients are listed.

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

None of the ingredients are listed.

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	CAS No	Remarks	Effective date
Aluminum	7429-90-5	Fume or dust	12/31/1986

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

None of the ingredients are listed.

Clean Air Act

None of the ingredients are listed.

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Right to Know Hazardous Substance List

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Aluminum	7429-90-5				1.0 %
Quartz (SiO ₂)		1095			1.0 %

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
Carbon black	1333-86-4	A, N, O, R, *	
Aluminum	7429-90-5	A	
Aluminum	7429-90-5	A	Fume
Aluminum	7429-90-5	A	Dust
Titanium dioxide	13463-67-7	A	
Quartz (SiO ₂)		A, *	

Legend

- * Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).
- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- dust If the substance poses an airborne particulate exposure hazard, the substance is followed by the word "dust."
- fume Small solid particles formed by the condensation of vapors of solid materials.
- N National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
- O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division
- R International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Carbon black	1333-86-4		CA
Aluminum	7429-90-5		F3 R1
Titanium dioxide	13463-67-7		
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9		
Quartz (SiO ₂)	14808-60-7		CA

Legend

- CA Carcinogenic
- F3 Flammable - Third Degree
- R1 Reactive - First Degree

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- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	CAS No	Classification
Carbon black	1333-86-4	
Aluminum	7429-90-5	E
Titanium dioxide	13463-67-7	

Legend

E Environmental hazard

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
Carbon black	1333-86-4	T
Aluminum	7429-90-5	T, F
Titanium dioxide	13463-67-7	T
Quartz (SiO ₂)	14808-60-7	T

Legend

F Flammability (NFPA®)
T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Remarks	Type of the toxicity
Carbon black	1333-86-4	Airborne, unbound particles of respirable size	Cancer
Titanium dioxide	13463-67-7	Airborne, unbound particles of respirable size	Cancer

Industry or sector specific available guidance(s)

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	Material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	Material that, under emergency conditions, can cause serious or permanent injury
Instability	0	Material that is normally stable, even under fire conditions
Special hazard		

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National inventories

Country	Inventory	Status
AU	AICS	All ingredients are listed.
CA	DSL	All ingredients are listed.
CN	IECSC	All ingredients are listed.
EU	ECSI	All ingredients are listed.
EU	REACH Reg.	All ingredients are listed.
JP	CSCL-ENCS	Not all ingredients are listed.
JP	ISHA-ENCS	Not all ingredients are listed.
KR	KECI	All ingredients are listed.
MX	INSQ	All ingredients are listed.
NZ	NZIoC	All ingredients are listed.
PH	PICCS	All ingredients are listed.
TR	CICR	All ingredients are listed.
TW	TCSI	All ingredients are listed.
US	TSCA	All ingredients are listed.

Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists

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Abbr.	Descriptions of used abbreviations
ACGIH® 2021	From ACGIH®, 2021 TLVs® and BEIs® Book. Copyright 2021. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NFPA®	National Fire Protection Association (United States)
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

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Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
OSHA003	May form combustible dust concentrations in air.

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SECTION 1: Identification

1.1 Product identifier

Trade name

Prismatic Powders E-Series

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

General use

1.3 Details of the supplier of the safety data sheet

NIC Industries, Inc
7050 6th St.
White City Oregon 97503
United States

Telephone: 866-774-7628
e-mail: sds@nicindustries.com
Website: www.nicindustries.com

1.4 Emergency telephone number

Emergency information service

1-800-633-8253 (USA & Canada) or 001-1-801-629-0667 (International)

The information contained in this Safety Data Sheet (SDS) is, to the best of our knowledge, true and accurate and presented in good faith. NIC Industries, Inc. makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. Because many factors may affect processing or application/use of this product, this data is offered solely for the user's consideration, investigation and verification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or process. Regulatory requirements are subject to change and may differ from one location to another. It is the responsibility of the buyer/user to ensure its activities comply with all local, state and federal regulations.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	Skin sensitization	1	Skin Sens. 1	H317
A.5	Germ cell mutagenicity	1B	Muta. 1B	H340
A.6	Carcinogenicity	1A	Carc. 1A	H350
A.7	Reproductive toxicity	1B	Repr. 1B	H360F
A.9	Specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects
Delayed or immediate effects can be expected after short or long-term exposure.

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2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word

DANGER

- Pictograms

GHS05, GHS07, GHS08



- Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H340	May cause genetic defects.
H350	May cause cancer.
H360F	May damage fertility.
H373	May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves.
P302+P352	If on skin: Wash with plenty of water.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P362	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling

reaction product: bisphenol-A(epichlorhydrin), epoxy resin (number average molecular weight \leq 700), 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione, bisphenol A, Carbon black, Poly(Bisphenol A-co-epichlorohydrin), glycidyl end-capped, nickel powder

2.3 Other hazards

Hazards not otherwise classified

Contains epoxy constituents. May produce an allergic reaction.
May be harmful if swallowed (GHS category 5: acutely toxic - oral).
May be harmful if inhaled (GHS category 5: acutely toxic - inhalation).
Very toxic to aquatic life with long lasting effects (GHS category 1: aquatic toxicity - acute and/or chronic).

Endocrine disrupting properties

Contains an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

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SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%
reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight \leq 700)	CAS No 25068-38-6	50 – < 75
Titanium dioxide	CAS No 13463-67-7	10 – < 25
Poly(Bisphenol A-co-epichlorohydrin), glycidyl end-capped	CAS No 25036-25-3	10 – < 25
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	CAS No 2451-62-9	5 – < 10
bisphenol A	CAS No 80-05-7	5 – < 10
Carbon black	CAS No 1333-86-4	1 – < 5
2-methylimidazole	CAS No 693-98-1	1 – < 5
nickel powder	CAS No 7440-02-0	< 1
2-Propenoic acid, homopolymer	CAS No 9003-01-4	< 1
Quartz (SiO ₂)	CAS No 14808-60-7	< 1

* Although TGIC is listed as a constituent for Prismatic Powders E-Series, TGIC is not present in every color in the series. To find out if a color contains TGIC please contact NIC Industries for verification.

** Trade Secret: In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200(i) and in accordance with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), the specific identity and/or exact percentage (concentration) of the composition has been withheld as a "Trade Secret."

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

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Following skin contact

Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, ABC-powder

5.2 Special hazards arising from the substance or mixture

Deposited combustible dust has considerable explosion potential.

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

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Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

- Ventilation requirements

Use local and general ventilation.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	Particulates not otherwise classified		REL							appx-D	NIOSH REL
US	Particulates not otherwise classified (PNOC)		PEL	1,766	15					partml, i, dust	29 CFR 1910.1000

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	Particulates not otherwise classified (PNOC)		PEL	529.5	5					partml, r, dust	29 CFR 1910.1000
US	Particulates not otherwise regulated		PEL (CA)		10					dust	Cal/ OSHA PEL
US	Particulates not otherwise regulated		PEL (CA)		5					r	Cal/ OSHA PEL
US	Carbon black	1333-86-4	PEL (CA)		3.5						Cal/ OSHA PEL
US	Carbon black	1333-86-4	PEL		3.5						29 CFR 1910.1000
US	Carbon black	1333-86-4	REL		3.5 (10 h)					appx-A, appx-C	NIOSH REL
US	Carbon black	1333-86-4	TLV®		3					i	ACGIH® 2021
US	Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)	1333-86-4	REL		0.1 (10 h)					PAHs, appx-A, appx-C	NIOSH REL
US	Titanium dioxide	13463-67-7	TLV®		10						ACGIH® 2021
US	Titanium dioxide	13463-67-7	PEL		15					i, dust	29 CFR 1910.1000
US	Titanium dioxide	13463-67-7	REL							lowest, appx-A	NIOSH REL
US	Quartz	14808-60-7	PEL (CA)		0.05					r	Cal/ OSHA PEL
US	Silica, crystalline - quartz	14808-60-7	PEL		0.05					r	29 CFR 1910.1000
US	Silica, crystalline - quartz	14808-60-7	REL		0.05 (10 h)					r, appx-A	NIOSH REL
US	1,3,5-triglycidyl-s-triazinetrione	2451-62-9	PEL (CA)		0.005						Cal/ OSHA PEL
US	1,3,5-triglycidyl-s-triazinetrione	2451-62-9	TLV®		0.05						ACGIH® 2021

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	Nickel	7440-02-0	PEL		1						29 CFR 1910.1000
US	Nickel	7440-02-0	REL		0.015 (10 h)					appx-A	NIOSH REL
US	Nickel	7440-02-0	TLV®		1.5					i	ACGIH® 2021
US	Nickel	7440-02-0	PEL (CA)		0.5					Ni	Cal/ OSHA PEL
US	Copper	7440-50-8	PEL		1					Cu, dm	29 CFR 1910.1000
US	Copper	7440-50-8	PEL		0.1					Cu, fume	29 CFR 1910.1000
US	Copper	7440-50-8	REL		1 (10 h)					dm, Cu	NIOSH REL
US	Copper	7440-50-8	TLV®		1					dm, Cu	ACGIH® 2021
US	Copper	7440-50-8	REL		0.1 (10 h)					fume	NIOSH REL
US	Copper	7440-50-8	PEL (CA)		0.1					fume, Cu	Cal/ OSHA PEL
US	Copper	7440-50-8	TLV®		0.2					fume, Cu	ACGIH® 2021

Notation

appx-A	NIOSH Potential Occupational Carcinogen (Appendix A)
appx-C	Appendix C - Supplementary Exposure Limits
appx-D	see Appendix D - Substances with No Established RELs
Ceiling-C	ceiling value is a limit value above which exposure should not occur
Cu	calculated as Cu (copper)
dm	as dusts and mists
dust	as dust
fume	as fume
i	inhalable fraction
lowest	exposure by all routes should be carefully controlled to levels as low as possible
Ni	calculated as Ni (nickel)
PAHs	as polycyclic aromatic hydrocarbons (PAHs)
part/ml	particles/ml
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

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Biological limit values						
Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	Nickel	Nickel		BEI®	5 µg/l	ACGIH® 2021

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Solid (powder)
Color	Various
Odor	Characteristic

Other safety parameters

pH (value)	Not applicable
Melting point/freezing point	Not determined
Initial boiling point and boiling range	>240 °C
Flash point	Not applicable
Evaporation rate	Not determined

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Flammability (solid, gas)	This material is combustible, but will not ignite readily
Explosion limits of dust clouds	Not determined
Vapor pressure	<0.007 Pa at 20 °C
Density	Not determined
Vapor density	Not available
Relative density	Not available
Solubility(ies)	Not determined

Partition coefficient

- n-octanol/water (log KOW)	Not available
Auto-ignition temperature	183 °C
Viscosity	Not relevant (solid matter)
Explosive properties	None
Oxidizing properties	None

9.2

Other information

There is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Oxidizers.

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10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed or if inhaled.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	Oral	>400 mg/kg
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	Inhalation: dust/mist	1.14 mg/l/4h
2-methylimidazole	693-98-1	Oral	1,500 mg/kg
2-Propenoic acid, homopolymer	9003-01-4	Inhalation: vapor	>5.1 mg/l/4h
2-Propenoic acid, homopolymer	9003-01-4	Inhalation: dust/mist	0.5 mg/l/4h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

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IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	2B	
Titanium dioxide	13463-67-7	2B	
2-Propenoic acid, homopolymer	9003-01-4	3	
2-methylimidazole	693-98-1	2B	
Quartz (SiO ₂)	14808-60-7	1	
nickel powder	7440-02-0	2B	

Legend

1	Carcinogenic to humans
2B	Possibly carcinogenic to humans
3	Not classifiable as to carcinogenicity in humans

National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	Known to be human carcinogens	1st Report on Carcinogens
nickel powder	7440-02-0	Reasonably anticipated to be a human carcinogen	1st Report on Carcinogens

Reproductive toxicity

May damage fertility.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	LC50	>77 mg/l	Fish	96 h

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Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	EC50	>100 mg/l	Aquatic invertebrates	24 h
Carbon black	1333-86-4	LC50	>1,000 mg/l	Fish	96 h
Carbon black	1333-86-4	EC50	>5,600 mg/l	Aquatic invertebrates	24 h
Carbon black	1333-86-4	ErC50	>10,000 mg/l	Algae	72 h
2-methylimidazole	693-98-1	LC50	190 mg/l	Fish	96 h
2-methylimidazole	693-98-1	EC50	200 mg/l	Aquatic invertebrates	48 h
2-methylimidazole	693-98-1	ErC50	256.3 mg/l	Algae	72 h
nickel powder	7440-02-0	LC50	15.3 mg/l	Fish	96 h
nickel powder	7440-02-0	EC50	406 µg/l	Aquatic invertebrates	24 h
nickel powder	7440-02-0	ErC50	237 µg/l	Algae	72 h
2-Propenoic acid, homo-polymer	9003-01-4	LC50	27 mg/l	Fish	96 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Carbon black	1333-86-4	EC50	>1,000 mg/l	Microorganisms	3 h
2-methylimidazole	693-98-1	EC50	459.9 mg/l	Microorganisms	7 h
nickel powder	7440-02-0	ErC50	8,363 µg/l	Fish	40 d
nickel powder	7440-02-0	LC50	≤144 µg/l	Aquatic invertebrates	21 d
nickel powder	7440-02-0	EC50	≤108 µg/l	Aquatic invertebrates	21 d
nickel powder	7440-02-0	EbC50	6.2 µg/l	Aquatic invertebrates	30 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

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12.6 Endocrine disrupting properties

Contains an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	UN number	Not subject to transport regulations
14.2	UN proper shipping name	Not relevant
14.3	Transport hazard class(es)	Not assigned
14.4	Packing group	Not assigned
14.5	Environmental hazards	Not assigned
	Environmentally hazardous substance (aquatic environment)	reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight ≤ 700)
14.6	Special precautions for user	
	There is no additional information.	
14.7	Transport in bulk according to Annex II of MARPOL and the IBC Code	
	The cargo is not intended to be carried in bulk.	

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not subject to transport regulations.

Reportable quantity (RQ) 12,500 lbs (5,675 kg) (nickel powder) (zinc powder-zinc dust (pyrophoric))

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)

All ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

None of the ingredients are listed.

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	CAS No	Remarks	Effective date
Bisphenol A	80-05-7		12/31/1986
Nickel powder	7440-02-0		12/31/1986

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
Nickel powder	7440-02-0	[4]	2	100 (45,4)

Legend

2 "2" indicates that the source is section 307(a) of the Clean Water Act
[4] No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers (0.004 inches).

Clean Air Act

None of the ingredients are listed.

Right to Know Hazardous Substance List

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Bisphenol A	80-05-7				1.0 %
Quartz (SiO ₂)		1095			1.0 %
Nickel powder	7440-02-0				1.0 %
Nickel powder		1029			0.1 %

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- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
Carbon black	1333-86-4	A, N, O, R, *	
Titanium dioxide	13463-67-7	A	
Quartz (SiO ₂)		A, *	
nickel powder		A, N, O, R, T, *	

Legend

- * Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).
- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- N National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
- O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division
- R International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA
- T National Toxicology Program (NTP) "Fifth Annual Report on Carcinogens," 1989 (NTP 89-239). Order information: (919) 541-3992

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Carbon black	1333-86-4		CA
Titanium dioxide	13463-67-7		
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9		
Bisphenol A	80-05-7		F2
Quartz (SiO ₂)	14808-60-7		CA
Nickel powder	7440-02-0		CA

Legend

- CA Carcinogenic
- F2 Flammable - Second Degree

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	CAS No	Classification
Carbon black	1333-86-4	
Titanium dioxide	13463-67-7	
bisphenol A	80-05-7	E
nickel powder		E
nickel powder		E, S

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Legend

E Environmental hazard
S Special hazardous substance

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
Carbon black	1333-86-4	T
Titanium dioxide	13463-67-7	T
Quartz (SiO ₂)	14808-60-7	T
Nickel powder	7440-02-0	T, C

Legend

C Carcinogenicity (IARC)
T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	CAS No	Remarks	Type of the toxicity
Carbon black	1333-86-4	Airborne, unbound particles of respirable size	Cancer
Titanium dioxide	13463-67-7	Airborne, unbound particles of respirable size	Cancer
Bisphenol A (BPA)	80-05-7		Female
Bisphenol A (BPA)	80-05-7		Developmental
2-Methylimidazole	693-98-1		Cancer
Nickel	7440-02-0	Metallic	Cancer
Nickel	7440-02-0	Nickel refinery dust from the pyrometallurgical process	Cancer

Industry or sector specific available guidance(s)

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	Material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	Material that, under emergency conditions, can cause serious or permanent injury
Instability	0	Material that is normally stable, even under fire conditions

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Category	Degree of hazard	Description
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	All ingredients are listed
CA	DSL	All ingredients are listed
CN	IECSC	All ingredients are listed
EU	ECSI	Not all ingredients are listed
EU	REACH Reg.	Not all ingredients are listed
JP	CSCL-ENCS	Not all ingredients are listed
JP	ISHA-ENCS	Not all ingredients are listed
KR	KECI	All ingredients are listed
MX	INSQ	Not all ingredients are listed
NZ	NZIoC	All ingredients are listed
PH	PICCS	All ingredients are listed
TR	CICR	Not all ingredients are listed
TW	TCSI	All ingredients are listed
US	TSCA	All ingredients are listed

Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

Prismatic Powders E-Series

Version number: 2.0

Revision: 12/20/2021

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2021	From ACGIH®, 2021 TLVs® and BEIs® Book. Copyright 2021. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
EbC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)

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Abbr.	Descriptions of used abbreviations
NLP	No-Longer Polymer
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H340	May cause genetic defects.
H350	May cause cancer.
H360F	May damage fertility.
H373	May cause damage to organs through prolonged or repeated exposure.



POWDER BUY THE POUND®

EQUIPMENT • TRAINING • SUPPORT

SAFETY DATA SHEET

PBTP – (DIAMOND ACRYLIC CLEAR II) – SK5511

Revision date: 06/02/2018

Supplier Powder Buy The Pound
P.O. Box 535
Nolensville, TN. 37135

For non-emergency information contact: 615-776-7600

Emergency Telephone

Spill Emergency 800-424-9300
Health Emergency 800-441-3637
Chemtrec 800-424-9300

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Description: Product is a mixture of hazardous and non-hazardous ingredients compounded in Polymer

Hazardous components: CAS# PEL-OSHA TLV-ACGIH Conc.[%] T-Glycid-T-Cyanurate (TGIC)
2451-62-9 N/E 0.05 mg/m³ 5-10

3. HAZARDS IDENTIFICATION

Hazard Summary

CAUTION!

POWDER MAY FORM EXPLOSIVE MIXTURES WITH AIR.
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
MAY CAUSE EYE/SKIN IRRITATION.
HARMFUL BY INHALATION AND IF SWALLOWED.
PROLONGED OR REPEATED OVEREXPOSURE TO BARIUM SULFATE CAN CAUSE BARITOSIS (A BENIGN PNEUMOCONIOSIS)
TGIC IS A POTENTIAL MUTAGEN AND GENOTOXIN. TGIC CAUSED SPERM CELL ABERRATIONS IN LABORATORY MICE.

Potential Health Effects

Eyes: Like any foreign body, particles can cause mechanical irritation. Causes eye irritation.

Skin: Material can cause the following: May cause sensitization by skin contact

Inhalation: Inhalation of dust can cause the following: headache, nausea

Primary Routes of Entry: Inhalation, Eye Contact, Skin Contact

Chronic Exposure: Prolonged or repeated overexposure to carbon black can cause lung effects. Prolonged or repeated overexposure to barium sulfate can cause baritosis (a benign pneumoconiosis). TGIC is a potential mutagen and genotoxin. TGIC caused sperm cell aberrations in laboratory mice.

Barium sulfate	IRIS	Not classifiable
Barium sulfate	ACGIH	Not classifiable as a human carcinogen
Clear resin	ACGIH	Not classifiable as a human carcinogen
Clear resin	IARC	Possible carcinogen
Clear resin	US CA CRT	Carcinogenic
Clear resin	NIOSH	Potentially carcinogenic

4. FIRST AID MEASURES

Inhalation: Move to fresh air. Give artificial respiration if breathing has stopped. When symptoms persist or in all cases of doubt, seek medical advice. If unconscious place in recovery position and seek medical advice. Keep patient warm and at rest.

Skin contact: Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. In case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist. Resin particles, like other inert materials, are mechanically irritating to eyes.

Ingestion: Never give anything by mouth to an unconscious person. Consult a physician. Immediately give large quantities of water to drink. Include vomiting, but only if the victim is fully conscious. If a person vomits when lying on his back, place him in the recovery position.

5. FIRE-FIGHTING MEASURES

Flash point	Not Determined not applicable
Lower explosion limit	30-70%(V)
Upper explosion limit	Not Determined

Thermal decomposition During a fire, irritating and highly toxic gases and/or fumes may be generated during combustion or decomposition. Thermal decomposition may yield the following: sulfur oxides, Carbon oxides

Suitable extinguishing media: Dry powder, foam, sand

Specific hazards during fire fighting: Do not allow run-off from fire fighting to enter drains or water courses. Dusts at sufficient concentrations can form explosive mixtures with air. DO NOT use a solid stream of water. A solid stream of water directed at this material may create a potentially explosive airborne dust mixture.

Special protective equipment for fire fighters: Wear full protective clothing and self-contained breathing apparatus.

Further information: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate personnel to safe areas.

MATERIAL IS TOXIC. If exposed to material during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water. See SECTION 4, First Aid Measures for further information.

MATERIAL IS A POTENTIAL SENSITIZER.

Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations.

Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Do not allow material to contaminate ground water system.

Do not flush into surface water or sanitary sewer system.

NOTE: Spills on porous surfaces can contaminate groundwater.

Methods for cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13).

Clean contaminated surface thoroughly.

Clean up promptly by sweeping or vacuum.

Do not create a powder cloud by using a brush or compressed air.

No sparking tools should be used.

Remove all sources of ignition.

Additional advice: See SECTION 13, Disposal Considerations, for information regarding the disposal of contained spills. MATERIAL IS A POTENTIAL SKIN SENSITIZER. If exposed to material during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water.

7. HANDLING AND STORAGE

For personal protection see section 8. Plan first aid action before beginning work with this product. Avoid exposure-obtain special instructions before use. Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Avoid formation of respirable particles. Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied. This material is a potential skin sensitizer. See SECTION 8, Exposure Controls/Personal Protection, prior to handling. This material is TOXIC. Use only in an area equipped with a safety shower. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion: Avoid formation of dust and aerosols. During processing, dust may form explosive mixture in air.

Storage

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Store in a place accessible by authorized persons only.

Storage period: 12 months; For product stored in clean, dry conditions at less than 80°F expected shelf life is at least 12 Months from receipt date.

Other data: No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s)

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value
Barium sulfate	Powder Buy the Pound	TWA Respirable	3mg/m3
	Powder Buy the Pound	TWA Total	10mg/m3
	ACGIH	TWA	10mg/m3
	NIOSH/GUIDE	REL Respirable	5mg/m3
	NIOSH/GUIDE	REL Total	10mg/m3
	OSHA_TRANS	PEL Respirable fraction	5mg/m3
	OSHA_TRANS	PEL Total dust	15mg/m3
	Z1A	TWA Respirable fraction	5mg/m3

Z1A
TX ESL
TX ESL
US CA OEL

TWA Total dust
ST ESL Respirable
AN ESL Respirable

10mg/m3

Component	Regulation	Type of listing	Value
Triglycidyl	Powder Buy the Pound	TWA	0.05mg/m3
	Powder Buy the Pound	STEL	0.15mg/m3
	ACGIH	TWA	0.05mg/m3
	TX ESL	ST ESL	
	TX ESL	AN ESL	

Component	Regulation	Type of listing	Value
Carbon black	Powder Buy the Pound	TWA	3.0mg/m3
	Powder Buy the Pound	STEL	6mg/m3
	ACGIH	TWA	3.5mg/m3
	OSHA_TRANS	PEL	3.5mg/m3
	TX ESL	ST ESL	
	TX ESL	AN ESL	

Eye protection: Use chemical splash goggles (ANSI Z87.1 or approved equivalent).

Hand protection: NOTE: Material is a possible skin sensitizer. Chemical-resistant gloves should be worn whenever this material is handled. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into the consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Skin and body protection: Safety shoes, complete suite protecting against chemicals. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Respiratory protection: None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. When dusty conditions are encountered, wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirators use.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust or spray mist. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. When using do not eat or drink. When using do not smoke. Do not breathe dust.

Protective measures: Plan first aid action before beginning work with this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Do not breathe dust.

Engineering measures: Use explosion-proof local exhaust ventilation with a minimum capture velocity of 100ft/min (0.5m/sec) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Melting point/range
70 - 80 Degrees C or 158 - 176 Degrees F
- Boiling point/range Not Applicable
- Flash point Not Applicable
- Auto igniting Product is still not self-igniting

- Danger of explosion Product does not normally present an explosive hazard. However, dust can combine with air to form an explosive mixture if it comes in contact with a source of ignition. LOWER EXPLOSION LIMIT: 15 g/m³ UPPER EXPLOSION LIMIT: 50 g/m³
- Density: 1.2 g/cm³ - 1.7 g/cm³
- Solubility in/miscibility with water Not miscible or difficult to mix
- Solvent content Organic solvents – 0 Solids content – 1

11. TOXICOLOGICAL INFORMATION

No toxicity data are available for this material.

Skin irritation Powder can cause localized skin irritation in folds of the skin or under tight clothing.

Component: Barium sulfate

Acute oral toxicity LD50 mouse >3,000mg/kg

Component: Triglycidyl isocyanurate

Acute oral toxicity LD50 rat 188mg/kg

Component: Carbon black

Acute oral toxicity LD50 rat >8,000mg/kg

Component: Triglycidyl isocyanurate

Acute inhalation toxicity LC50 rat 4h 0.3mg/l aerosol

Component: Triglycidyl isocyanurate

Acute dermal toxicity LD50 rabbit >3,000 mg/kg

Component: Carbon black

Acute dermal toxicity LD50 rabbit >3,000mg/kg

Component: Triglycidyl isocyanurate

Eye irritation rabbit Severe eye irritation

Component: Carbon black

Eye irritation rabbit No eye irritation

Component: Triglycidyl isocyanurate

Sensitization guinea pig Skin sensitizer

Component: Triglycidyl isocyanurate

Toxicity to reproduction Experiments have shown reproductive toxicity effects on laboratory animals.

Component: Triglycidyl isocyanurate

Mutagenicity Has been found to be mutagenic in a variety of systems.

Component: Carbon black

Teratogenicity When maternal toxicity occurred slight fetotoxicity but no teratogenicity was also observed in these animals.

12. ECOLOGICAL INFORMATION

Aquatic toxicity is unlikely due to low solubility.

Barium sulfate

Ecotoxicity effects

_____ **Toxicity to aquatic invertebrates** _____ EC50 Daphnia magna 48h 32mg/l

Triglycidyl isocyanurate

Elimination information

(persistence and degradability)

Biodegradability Inherently biodegradable

Biodegradability Not readily biodegraded

Ecotoxicity effects

Toxicity to fish LC50 Zebra fish (Danio/Brachydanio rerio) 96h >77mg/l

Toxicity to algae EC50 Algae 72h OECD Test Guideline 201 29mg/l

Toxicity to aquatic invertebrates

EC50 Daphnia magna 24h >100mg/l

13. DISPOSAL CONSIDERATIONS

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. NOTE: Spills on porous surfaces can contaminate groundwater.

Disposal

Waste Classification: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosively, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristics Leaching Procedure (TCLP).

For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations (see 40 CFR Part 268).

Contaminated packaging: Store containers and offer for recycling of material when in accordance with the local regulations.

14. TRANSPORT INFORMATION

DOT _____ Not regulated for transport

IMO/IMDG _____ Not regulated (Not dangerous for transport)

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

15. REGULATORY INFORMATION

Workplace Classification

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This product is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE III: Section 311/312 Categorizations (40CFR370): Acute Health Hazard / Chronic Health Hazard

SARA TITLE III: Section 313 information (40CFR372)

SARA Title III Components: Epichlorohydrin 106-89-8

CERCLA Information (40CFR302.4)

CERCLA Components: Barium sulfate 7727-43-7 1,000lbs. RQ

US. Toxic Substances Control Act (TSCA): All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Pennsylvania

Any material listed as “Not Hazardous” in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

California (Proposition 65)

This product contains trace levels of a component or components known to the state of California to cause cancer and birth defects or other reproductive harm:

Components: Epichlorohydrin 106-89-8

16. OTHER INFORMATION

Hazard Rating

	Health	Fire	Reactivity
HMIS	2*	1	0

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
Bac	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average
I	Bar denotes a revision from prior MSDS

The information provided in this Safety Data Sheet is correct to the best of Powder Buy The Pound's (PSS) knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Sulfurated Potash	Distributed by:
CAS #	39365-88-3	The Science Company
Manufacturer	Sentury Reagents, Inc. 2515 Commerce Dr. Rock Hill, SC 29730	7625 W Hampden Ave, #14 Lakewood CO 80227
Telephone	803-327-6880	Ph: 303-777-3777
Fax	803-327-3872	Sales@sciencecompany.com
Emergency Phone # and Account	Chemtrec 800-424-9300 19961	Cat no. NC-10959, NC-0729, NC-7591

2. HAZARDS IDENTIFICATION

Target Organs: Lungs

GHS Classification

Acute Toxicity, Oral (Category 3)

Specific Organ Toxicity – single exposure, respiratory tract irritant (Category 3)

Skin Irritation (Category 2)

Serious Eye Irritation (Category 2)

GH3 Label elements, including precautionary statements

Pictogram



Signal Word Warning

Hazard statement(s)

H303	May be harmful if swallowed.
H315	Causes skin irritation.
H320	Causes eye irritation.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.

Precautionary statement(s)

P261	Avoid breathing dust/fumes/mist.
P264	Wash hands, face and clothing after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well ventilated area.
P280	Wear protective gloves/clothing/eye protection/face protection.
P304 & P340	If inhaled remove person to fresh air and keep comfortable for breathing.
P305 & P351	If in eyes, rinse cautiously with water for several minutes.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a poison center/doctor if you feel unwell.

HMIS Classification

Health hazard:	2
Contact:	1
Flammability	2
Physical hazards:	2
Personal	B

NFPA Classification:

Health hazard:	2
Reactivity:	0
Flammability:	2

Dust may form a flammable mixture in air. Substance may burn in a very hot fire and give off irritating vapors.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms:	Liver of Sulfur, Sulfurated potassa, hepar sulfuris	
Component		Concentration
Potassium Trisulfide		
CAS-No.	37488-75-8	25%
Potassium Thiosulfate Hydrated		
CAS-No.	10294-66-3	75%

4. FIRST AID MEASURES

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Fire:

Flammable solid. Dust may form explosive mixtures with air.

Explosion:

Not considered to be an explosion hazard. Contact with acids or steam may produce flammable, explosive, poisonous hydrogen sulfide.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

7. HANDLING AND STORAGE

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Do NOT attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate

respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Yellow-brown to brown lumps.
Colour	Yellow-brown to brown lumps.

Safety data

pH	no data available
Melting/ freezing point	no data available
Boiling point	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	Soluble in water.
Relative vapor density	no data available
Odour	Rotten egg, sulfide odor
Evaporation Rate	no data available

10. STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage. May air-oxidize. Decomposes on exposure to air forming free sulfur and potassium carbonate.

Hazardous Decomposition Products:

Burning may produce sulfur oxides.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Oxidizing agents, halogens and halogenated organic compounds, acids, alcohols, strong reducing agents, carbonated waters, acid salts, combustible materials, most common metals, zinc, aluminum. Avoid air, heat, flame, sources of ignition, dusting.

Conditions to Avoid:

Dusting, air, heat, flames, ignition sources and incompatibles.

11. TOXICOLOGICAL INFORMATION

No LD50/LC50 information found relating to normal routes of occupational exposure.

-----\Cancer Lists\-----				
---NTP Carcinogen---				
Ingredient	Known	Anticipated	IARC Category	
Potassium Trisulfide (37488-75-8)	No	No	None	
Potassium Thiosulfate Hydrated (10294-66-3)	No	No	None	

12. ECOLOGICAL INFORMATION

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. DISPOSAL CONSIDERATIONS

Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

DOT: Not Regulated Chemicals n.o.s. (Sulfurated Potash)

IMDG: Not Regulated Chemicals n.o.s. (Sulfurated Potash)

IATA: Not Regulated Chemicals n.o.s. (Sulfurated Potash)

15. REGULATORY INFORMATION

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
------------	------	----	-------	-----------

Potassium Trisulfide (37488-75-8)	Yes	Yes	Yes	No
-----------------------------------	-----	-----	-----	----

Potassium Thiosulfate Hydrated (10294-66-3)	Yes	Yes	Yes	Yes
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-----\Chemical Inventory Status - Part 2\-----

--Canada--

Ingredient	Korea	DSL	NDSL	Phil.
------------	-------	-----	------	-------

Potassium Trisulfide (37488-75-8)	Yes	Yes	No	No
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Potassium Thiosulfate Hydrated (10294-66-3)	Yes	Yes	No	Yes
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-----\Federal, State & International Regulations - Part 1\-----

-SARA 302- -----SARA 313-----

Ingredient	RQ	TPQ	List	Chemical Catg.
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Potassium Trisulfide (37488-75-8)	No	No	No	No
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Potassium Thiosulfate Hydrated (10294-66-3)	No	No	No	No
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-----\Federal, State & International Regulations - Part 2\-----

-RCRA- -TSCA-

Ingredient	CERCLA	261.33	8(d)
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Potassium Trisulfide (37488-75-8)	No	No	No
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Potassium Thiosulfate Hydrated	No	No	No
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(10294-66-3)

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No

Reactivity: No (Mixture / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. OTHER INFORMATION

Label Hazard Warning:

WARNING! FLAMMABLE SOLID. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. DUST MAY FORM FLAMMABLE OR EXPLOSIVE MIXTURE WITH AIR.

Label Precautions:

Keep away from heat, sparks and flame.

Keep container closed.

Use only with adequate ventilation.

Avoid breathing dust.

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Label First Aid:

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

Further information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.

1. Identification

Product Identifier: **Hydrogel® Mold Compound**
 Product Code(s): HYDROGEL
 Use: Alginate-based mold compound. For Industrial/Professional use only.
 Manufacturer: Polytek Development Corp.
 55 Hilton St., Easton, PA 18042
 Phone Number: 610-559-8620 (9 a.m. to 5 p.m. EST)
 Emergency Phone: CHEMTREC 800-424-9300 or +1 (703) 527-3887
 E-mail: sds@polytek.com

2. Hazards Identification

GHS Classification: Not hazardous per 29 CFR 1910.1200.

Label Elements: No GHS label required.

Supplemental Information: May cause mild eye and respiratory irritation. Avoid contact with eyes. Avoid breathing dust. Do not put down the drain.

3. Composition/Information on Ingredients

Chemical Name	CAS #	GHS Classification	%
Ingredients are not classified as health, physical or environmental hazards, and/or are present below cut-off/concentration limits.			

4. First-Aid Measures

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact: Wash with soap and water.

Inhalation: Remove person to fresh air.

Ingestion: Do not induce vomiting. Get medical attention.

Most Important Symptoms/Effects: No data available.

Indication of Immediate Medical Attention/Special Treatment: No data available.

5. Fire-Fighting Measures

Extinguishing Media: Use foam, dry chemical or carbon dioxide.

Specific Hazards: None known.

Special Protective Equipment & Precautions for Fire-Fighters: Wear positive pressure, self-contained breathing apparatus and full-body protective clothing.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Avoid dust generation.

Methods and Materials for Containment and Cleanup: Collect into an appropriate container for disposal.

7. Handling and Storage

Safe Handling: Avoid contact with eyes. Minimize dust generation. Wear a dust mask. Wash thoroughly after handling.

Safe Storage: Store at room temperature in tightly closed container.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits:

Inert/Nuisance Dust	OSHA PEL	15 mg/m ³ (inhalable)
		5 mg/m ³ (respirable)
	ACGIH TWA	10 mg/m ³ (inhalable)
		3 mg/m ³ (respirable)

Ventilation: Use with adequate general or local exhaust ventilation.

Respiratory Protection: Wear a dust mask.

Skin Protection: Wear impervious gloves to prevent skin drying.

Eye Protection: Wear chemical safety goggles/glasses.

Other Protective Measures: Follow good Industrial Hygiene practice.

9. Physical and Chemical Properties

Appearance: White powder

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting Point: No data available

Boiling Point: No data available

Flash Point: No data available

Evap. Rate: No data available

Flammability Limits: No data available

Vapor Pressure: No data available

Vapor Density: No data available

Relative Density: 0.3 @ 25°C

Solubility: Insoluble in water

Partition Coefficient: No data available

Auto-Ignition Temp: No data available

Decomposition Temp: No data available

Viscosity: No data available

10. Stability and Reactivity

Reactivity: Not normally reactive.

Chemical Stability: Stable under recommended conditions.

Possibility of Hazardous Reactions: Under recommended conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid: Avoid freezing.

Incompatible Materials: Avoid contact with water reactive materials.

Hazardous Decomposition Products: No data available.

11. Toxicological Information

Eye Contact: May cause eye irritation.

Skin Contact: Prolonged contact with powder may dry skin.

Inhalation: Dust may be irritating to the respiratory tract.

Ingestion: Not expected to be a route of entry.

Chronic Health Effects: No data available.

Acute Toxicity Values: No data available.

Germ Cell Mutagenicity: Not classified as a mutagen.

Carcinogenicity: Based on available information, this product does not contain constituents at concentrations exceeding 0.1% that are listed as carcinogens by IARC, NTP, or OSHA.

Reproductive Toxicity: Not classified as a reproductive toxin.

Specific Target Organ Toxicity: Not classified as a specific organ toxicant by single exposure or repeated exposure.

12. Ecological Information

Ecotoxicity: Not classified as toxic to the aquatic environment.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

13. Disposal Considerations

Dispose according to local, state and federal regulations.

14. Transport Information

Not regulated for transport by any mode.

Emergency Shipping Info: CHEMTREC, 800-424-9300 or +1-703-527-3887

15. Regulatory Information

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product is not subject to reporting under CERCLA.

SARA TITLE III

Section 311/312: Not applicable.

Section 313 Toxic Chemicals: This product contains no chemicals subject to SARA Title III Section 313 Reporting requirements.

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: The components of this product are listed on TSCA.

STATE REGULATIONS:

California Proposition 65: No warning required.

16. Other Information

Recommended Uses and Restrictions: This product is intended for Industrial/Professional use only.

SDS Revision Notes: Revised on Feb. 9, 2016. Supersedes SDS dated Apr. 6, 2015.

Disclaimer: The information contained herein is considered accurate; however, Polytek® makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.



SAFETY DATA SHEET

1. Identification

Product identifier FERRIC NITRATE

Other means of identification

Product Code 1730

Synonym(s) Ferric nitrate nonahydrate (CAS #7782-61-8)

Recommended use Intermediate handled under strictly controlled conditions

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Manufacturer / Supplier: The Shepherd Chemical Company

Address: 4900 Beech Street
Norwood, Ohio 45212 USA

Telephone: 513-731-1110

Fax: 513-731-2151

Emergency USA: CHEMTREC: 800-424-9300

Emergency International: CHEMTREC: 00 1 703-527-3887

Emergency EU +112

Distributed by
The Science Company
7625 W Hampden Ave, #14
Lakewood CO 80227
Ph: 303-777-3777
sales@sciencecompany.com
Cat. No. NC-11220, NC-11272,
NC-10244

2. Hazard(s) identification

Physical hazards Oxidizing solids Category 3

Health hazards Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May intensify fire; oxidizer. Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention Keep away from heat. Take any precaution to avoid mixing with combustibles. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response In case of major fire and large quantities: Evacuate area and fight fire remotely due to the risk of explosion. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish.

Storage Store locked up. Do not store near combustible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ferric Nitrate		10421-48-4	60
Waters of hydration		7732-18-5	40

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Not applicable. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	None known. May intensify fire; oxidizer.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	May intensify fire; oxidizer.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Prevent entry into waterways, sewers, basements or confined areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Bund far ahead of liquid spill for later disposal. This product is miscible in water. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep away from heat. Take any precaution to avoid mixing with combustibles. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Do not store near combustible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Percent
Ferric Nitrate (10421-48-4)	TWA	1 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Percent
Ferric Nitrate (10421-48-4)	TWA	1 mg/m3	

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear eye/face protection. Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	crystals
Physical state	Solid.
Form	Solid.
Color	Violet.
Odor	Slight nitric acid odor.
Odor threshold	Not available.
pH	Not applicable
Melting point/freezing point	116.96 °F (47.2 °C) nonahydrate
Initial boiling point and boiling range	Not applicable
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	soluble
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	257 °F (125 °C)
Viscosity	Not available.
Other information	
Oxidizing properties	No oxidizing properties.
Percent volatile	0 % estimated estimated
Specific gravity	1.7
VOC (Weight %)	0 % estimated

Loose Packing Density Not available.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Excessive heat. Avoid temperatures exceeding the decomposition temperature. None known.
Contact with incompatible materials.

Incompatible materials Organic materials

Hazardous decomposition products No dangerous reaction known under conditions of normal use.

11. Toxicological information

Information on likely routes of exposure

Ingestion Causes digestive tract burns.

Inhalation Prolonged inhalation may be harmful. May cause irritation to the respiratory system.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Ferric Nitrate (CAS 10421-48-4)		
Acute		
<i>Oral</i>		
LD50	Rat	3250 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization No data available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

Chronic effects Prolonged inhalation may be harmful. Not available.

12. Ecological information

Ecotoxicity The methods for determining biodegradability are not applicable to inorganic substances.

Persistence and degradability The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential Not applicable.

Mobility in soil No data available.

Other adverse effects Not established.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1466
UN proper shipping name	Ferric nitrate
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Label(s)	5.1
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	A1, A29, IB8, IP3, T1, TP33
Packaging exceptions	152
Packaging non bulk	213
Packaging bulk	240

DOT BULK

UN number	UN1466
UN proper shipping name	Ferric Nitrate (RQ = 1000)
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Label(s)	5.1
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	UN1466
UN proper shipping name	Ferric nitrate
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	5L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Forbidden.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1466
UN proper shipping name	FERRIC NITRATE
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-Q
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

DOT



DOT BULK; IATA; IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Ferric Nitrate (CAS 10421-48-4)

LISTED

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Yes

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Water Dissociable Nitrate Compound N511		100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Ferric Nitrate (CAS 10421-48-4)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Ferric Nitrate (CAS 10421-48-4)

US. Rhode Island RTK

Ferric Nitrate (CAS 10421-48-4)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-10-2015

Version # 01

Disclaimer

ALTHOUGH THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN (HEREINAFTER "INFORMATION") ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF, THE SHEPHERD CHEMICAL COMPANY MAKES NO REPRESENTATIONS AS TO THE COMPLETENESS OR ACCURACY THEREOF. INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR PURPOSES PRIOR TO USE. IN NO EVENT WILL THE SHEPHERD CHEMICAL COMPANY BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: Ferric Chloride, Anhydrous

Product Code(s): NC-8600, NC-3515, NC-11856, F1025

Synonyms: Iron (III) Chloride

Recommended Use: For manufacturing, industrial, and laboratory use only. Use as a catalyst or as a laboratory solute.

Uses Advised Against: Not for food, drug, or household use.

Supplier: The Science Company
7625 W Hampden Ave #14 Lakewood CO 80227
Phone: 303-777-3777 Fax: 303-777-3331

Emergency Phone Number: (800) 255-3924 (CHEM-TEL)

2. HAZARDS IDENTIFICATION

Hazard Classifications:

Acute Toxicity – Oral:	Category 4
Skin Corrosion/Irritation:	Category 2
Eye Damage/Irritation:	Category 1
Sensitization – Skin:	Category 1
Corrosive to Metals:	Category 1

Signal Word: DANGER

Hazard Statements:

- Harmful if swallowed.
- Causes skin irritation.
- Causes serious eye damage.
- May cause an allergic skin reaction.
- May be corrosive to metals.

Pictograms:



Precautionary Statements:

Prevention:	Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves, protective clothing, eye protection, and face protection. Avoid breathing dusts and fumes. Contaminated work clothing must not be allowed out of the workplace. Keep only in original container.
Response:	If swallowed: Call a poison center or doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. Absorb spillage to prevent material damage.
Storage:	Store in a corrosive resistant container with a resistant inner liner.
Disposal:	Dispose of contents and container in accordance with local, regional, national, and international regulations.
Hazards Not Otherwise Classified:	Toxic to aquatic life. Avoid release to the environment.
Toxicity Statement:	Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Ferric Chloride, Anhydrous	Iron (III) Chloride	7705-08-0	FeCl ₃	≥ 98.5

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES**First Aid Procedures:**

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician if symptoms occur.
Ingestion:	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a poison center or doctor if you feel unwell.
Skin Contact:	Remove contaminated clothing and shoes immediately. Wash skin with plenty of water for at least 15 minutes. Wash clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Eye Contact:	Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Immediately call a poison center or doctor.
General Advice:	Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Inhalation may cause irritation, burns, lung inflammation, and fluid in lungs. Ingestion may cause burns, tissue death, sore throat, abdominal pain, nausea, vomiting, diarrhea, convulsions, metabolic acidosis, and stomach bleeding. Skin contact may cause burns. Eye contact may cause burns. Prolonged or repeated exposure may affect the teeth and liver; may cause necrosis, pneumonia, and skin sensitization.

**Immediate Medical Care/
Special Treatment:** Get medical attention immediately if you feel unwell or are concerned. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

**Hazardous Combustion
Products:** Iron oxides, hydrogen chloride.

Specific Hazards: Excessive thermal conditions may cause decomposition and yield toxic and/or corrosive fumes. Contact with water may cause violent exothermic reaction.

**Special Protective Equipment/
Precautions for Firefighters:** As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and
Protective Equipment:** Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Prevent entry into waterways, sewer, basements, or confined areas. Product should not be released to the environment. Contain and recover solid when possible.

Methods for Cleanup: Sweep up spill and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin, eyes, and clothing. Limit exposure to moisture. Avoid generation of product dust. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area. Store away from heat and incompatible materials (see section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with

all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: Iron: ACGIH (TLV): 1 mg/m³
NIOSH (IDLH): 1 mg/m³

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or safety goggles. Wear a face shield. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers. If respiratory protection is required, use full face protection as well.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

Appearance: Black, opaque solid.

Odor: Slight, characteristic.

Odor Threshold: No information found.

Formula Weight: 162.21

pH: No information found.

Melting/Freezing Point: 304 °C

Boiling Point/Range: No information found.

Decomposition Temperature: No information found.

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not flammable.

Flammability/Explosive Limits: Not applicable.

Solubility: Soluble in water.

Vapor Pressure: No information found.

Vapor Density: No information found.

Specific Gravity:	2.85 (Water = 1)
Evaporation Rate:	No information found.
Viscosity:	No information found.
Partition Coefficient (n-octanol/water):	No information found.

10. STABILITY AND REACTIVITY

Reactivity Data:	Corrosive. See Section 11.
Chemical Stability:	Stable under normal conditions. Hygroscopic.
Conditions to Avoid:	Heat, moisture, incompatible materials.
Incompatible Materials:	Oxidizers, strong bases, water, metals, cyanides.
Hazardous Decomposition Products:	Iron oxides, hydrogen chloride.
Possibility of Hazardous Reactions:	May react vigorously, violently, or explosively with the incompatible materials listed above. Excessive thermal conditions may yield hazardous decomposition products listed above. Contact with water may cause violent exothermic reaction.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact.
Acute Effects:	Corrosive. Harmful if swallowed or exposed to the skin or eyes. May be harmful if inhaled. May affect the gastrointestinal tract, blood, and liver.
Chronic Effects:	Prolonged or repeated exposure may affect the teeth and liver; may cause necrosis, pneumonia, and skin sensitization.
Toxicological Data:	LD ₅₀ Oral, Rat: 450 mg/kg LD ₅₀ Dermal, Rabbit: > 2000 mg/kg Corrosive to eyes based on animal data. Causes skin irritation based on animal data.
Symptoms of Exposure:	Irritation, burns, spasms, pneumonitis, pulmonary edema, necrosis, sore throat, abdominal pain, nausea, vomiting, diarrhea, hematemesis, metabolic acidosis, convulsions.
Carcinogenic Effects:	This product is not considered to cause cancer by IARC, ACGIH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	LC ₅₀ , Fathead Minnow (<i>Pimephales promelas</i>): 21.84 mg/L 96 h EC ₅₀ , Water Flea (<i>Daphnia magna</i>): 9.6 mg/L 48 h
Persistence and Degradability:	No information found.
Environmental Effects:	Toxic to aquatic organisms. Avoid release to the environment.

13. DISPOSAL INFORMATION

Disposal Instructions: All wastes must be handled in accordance with local, state, and federal regulations. Minimize exposure to product waste (see Section 8).

Contaminated Packaging: Because emptied containers may retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: D002: Waste Corrosive Material ($\text{pH} \leq 2$ or $\text{pH} \geq 12.5$ or corrosive to steel)

14. TRANSPORT INFORMATION

DOT:

UN Number: UN1773

Proper Shipping Name: Ferric chloride, anhydrous

Hazard Class: 8

Packing Group: III

ERG Number: 157

Environmental Hazard Regulations: Considered a marine pollutant by IMDG.

Other Transport Precautions: DOT Reportable Quantity: 1000 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: No information found.

CERCLA Reportable Quantities: Ferric Chloride, Anhydrous: 1000 lb

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed components of this product comply with the inventory requirements administered by the governing country or region.

16. OTHER INFORMATION**Disclaimer:**

The Science Company provides the information in this Safety Data Sheet in the belief that it is reliable but assumes no responsibility for its completeness or accuracy. The physical properties reported in this SDS are obtained from literature and do not constitute product specifications. The Science Company makes and gives no representations or warranties with respect to the information contained herein or the product to which it refers, whether express, implied, or statutory, including without limitation, warranties of accuracy, completeness, merchantability, non-infringement, performance, safety, suitability, stability, and fitness for a particular purpose. No warranty against infringement of any patent, copyright or trademark is made or implied. This SDS is intended only as a guide to the appropriate handling of the material by a properly trained person. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. Accordingly, The Science Company assumes no liability whatsoever for the use of or reliance upon this information including results obtained, incidental or consequential damages, or lost profits.

Issue Date:

June 17, 2021

Reason for Revision:

Update of first aid information in Section 4. Supersedes 05/19/2016 version.

1 Identification

- **Product identifier**
- **Trade name:** EW10041Z Eastwood PRE Painting Prep Aerosol
- **Article number:** EW10041Z
- **Application of the substance / the mixture** Exterior vehicle cleaner
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Eastwood Products
 263 Shoemaker Road
 Pottstown, PA 19464
 United States of America
- **Information department:** (800)343-9353
- **Emergency telephone number:** CHEMTREC 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 GHS04 Flame, Gas cylinder

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to the central nervous system through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02

GHS04

GHS07

GHS08

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· **Signal word** *Danger*· **Hazard-determining components of labeling:***xylene**toluene**Solvent naphtha (petroleum), medium aliph.*· **Hazard statements***H222 Extremely flammable aerosol.**H280 Contains gas under pressure; may explode if heated.**H332 Harmful if inhaled.**H315 Causes skin irritation.**H361 Suspected of damaging fertility or the unborn child.**H336 May cause drowsiness or dizziness.**H372 Causes damage to the central nervous system through prolonged or repeated exposure.**H304 May be fatal if swallowed and enters airways.*· **Precautionary statements***P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.**P251 Do not pierce or burn, even after use.**P260 Do not breathe dust/fume/gas/mist/vapors/spray.**P211 Do not spray on an open flame or other ignition source.**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P264 Wash thoroughly after handling.**P270 Do not eat, drink or smoke when using this product.**P271 Use only outdoors or in a well-ventilated area.**P201 Obtain special instructions before use.**P202 Do not handle until all safety precautions have been read and understood.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P321 Specific treatment (see on this label).**P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P312 Call a POISON CENTER/doctor if you feel unwell.**P308+P313 IF exposed or concerned: Get medical advice/attention.**P332+P313 If skin irritation occurs: Get medical advice/attention.**P314 Get medical advice/attention if you feel unwell.**P331 Do NOT induce vomiting.**P302+P352 IF ON SKIN: Wash with plenty of water.**P362+P364 Take off contaminated clothing and wash it before reuse.**P405 Store locked up.**P410+P403 Protect from sunlight. Store in a well-ventilated place.**P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.**P403+P233 Store in a well-ventilated place. Keep container tightly closed.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Classification system:**· **NFPA ratings (scale 0 - 4)***Health = 1**Fire = 4**Reactivity = 3*· **HMIS-ratings (scale 0 - 4)***Health = *1**Fire = 4**Reactivity = 3*

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Trade name: EW10041Z Eastwood PRE Painting Prep Aerosol

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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mixture: consisting of the following components.
Weight percentages

- **Dangerous components:**

1330-20-7	xylene	13 - 30%
108-88-3	toluene	13 - 30%
64742-88-7	Solvent naphtha (petroleum), medium aliph.	13 - 30%
68476-86-8	Petroleum gases, liquefied, sweetened	13 - 30%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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Trade name: EW10041Z Eastwood PRE Painting Prep Aerosol

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions: No special measures required.**

· **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

1330-20-7	xylene	130 ppm
108-88-3	toluene	67 ppm

· **PAC-2:**

1330-20-7	xylene	920* ppm
108-88-3	toluene	560 ppm

· **PAC-3:**

1330-20-7	xylene	2500* ppm
108-88-3	toluene	3700* ppm

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

No special measures required.

Ensure good ventilation/exhaustion at the workplace.

· **Information about protection against explosions and fires:**

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility: Not required.**

· **Further information about storage conditions: Keep receptacle tightly sealed.**

· **Specific end use(s) No further relevant information available.**

8 Exposure controls/personal protection

· **Additional information about design of technical systems: No further data; see item 7.**

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· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

1330-20-7 xylene

PEL	Long-term value: 435 mg/m ³ , 100 ppm
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI

108-88-3 toluene

PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV	Long-term value: 75 mg/m ³ , 20 ppm BEI

· **Ingredients with biological limit values:**

1330-20-7 xylene

BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
-----	--

108-88-3 toluene

BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

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Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Aerosol
Color:	Clear
Odor:	Characteristic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	110 °C

· **Flash point:** -103 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 265 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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· Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
· Explosion limits:	
Lower:	0.6 Vol %
Upper:	9.5 Vol %
· Vapor pressure at 20 °C:	29 hPa
· Density at 20 °C:	0.76832 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VOC content:	100.0 %
	768.3 g/l / 6.41 lb/gal
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

1330-20-7 xylene

Oral	LD50	4300 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

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64742-88-7 Solvent naphtha (petroleum), medium aliph.

Oral	LD50	>6500 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rab)
Inhalative	LC50/4 h	>14 mg/l (rat)

· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** No irritating effect.· **Sensitization:** No sensitizing effects known.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene	3
108-88-3	toluene	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential** No further relevant information available.· **Mobility in soil** No further relevant information available.· **Additional ecological information:**· **General notes:** Generally not hazardous for water· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**· **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· UN-Number	UN1950
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	Aerosols, flammable
· DOT	1950 Aerosols
· ADR	AEROSOLS
· IMDG	AEROSOLS, flammable
· IATA	
· Transport hazard class(es)	
· DOT	
· Class	2.1
· Label	2.1
· ADR	
· Class	2 5F Gases
· Label	2.1
· IMDG, IATA	
· Class	2.1
· Label	2.1
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Gases
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision

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·	of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

*

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

1330-20-7 xylene

108-88-3 toluene

· TSCA (Toxic Substances Control Act):

1330-20-7 xylene

108-88-3 toluene

64742-88-7 Solvent naphtha (petroleum), medium aliph.

· Proposition 65

· Chemicals known to cause cancer:

1330-20-7 xylene

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

108-88-3 toluene

· Cancerogenity categories

· EPA (Environmental Protection Agency)

1330-20-7 xylene

I

108-88-3 toluene

II

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· **TLV (Threshold Limit Value established by ACGIH)**

1330-20-7	xylene	A4
108-88-3	toluene	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



· **Signal word** Danger

· **Hazard-determining components of labeling:**

xylene

toluene

Solvent naphtha (petroleum), medium aliph.

· **Hazard statements**

H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H361 Suspected of damaging fertility or the unborn child.

H336 May cause drowsiness or dizziness.

H372 Causes damage to the central nervous system through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P251 Do not pierce or burn, even after use.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P211 Do not spray on an open flame or other ignition source.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P321 Specific treatment (see on this label).

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P331 Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

(Contd. on page 12)

Printing date 04/11/2017

Reviewed on 04/11/2017

Trade name: EW10041Z Eastwood PRE Painting Prep Aerosol

(Contd. of page 11)

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.
Date of preparation / last revision 04/11/2017 / 11
· Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Aerosol 1: Aerosols – Category 1
Press. Gas: Gases under pressure – Compressed gas
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
Asp. Tox. 1: Aspiration hazard – Category 1
*· * Data compared to the previous version altered.*

Safety Data Sheet

acc. GHS

Printing date 09/20/2016

Reviewed on 09/20/2016

1 Identification

- . Product identifier
- . Trade name DRYPROTECTOR PRIMER SM FMT
- . Article number: 10301
- . Manufacturer/Supplier:

The Eastwood Company
263 Shoemaker Road
Pottstown, PA 19464

Phone: 800-343-9353

Emergency Telephone number: 24/7 - 800-424-9300

2 Hazard(s) identification

- . Classification of the substance or mixture



GHS08 Health hazard

Carc. 1A H350 May cause cancer.

Combustible Dust May form combustible dust concentrations in air.

- . Label elements

- . GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- . Hazard pictograms



GHS08

- . Signal word *Danger*

- . Hazard-determining components of labeling:

quartz (SiO₂)

- . Hazard statements

May cause cancer.

May form combustible dust concentrations in air.

- . Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

(Contd. on page 2)

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Printing date 09/20/2016

Reviewed on 09/20/2016

Trade name DRYPROTECTOR PRIMER SM FMT

(Contd. of page 1)

If exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

. **Classification system**. **NFPA ratings (scale 0-4)**

Health = 1

Fire = 1

Reactivity = 1

. **HMIS-RATINGS (SCALE 0 - 4)**

Health = 1

Fire = 1

Reactivity = 1

. **Other hazards**. **Results of PBT and vPvB assessment**. **PBT:** Not applicable.. **vPvB:** Not applicable.

3 Composition/information on ingredients

. **Chemical characterization: Mixtures**. **Description:** Mixture consisting of the following components with harmless additives.. **Hazardous ingredients:**

13463-67-7	titanium dioxide	2.5-10%
54553-90-1	benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole (1:1)	2.5-10%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	
14808-60-7	quartz (SiO2)	< 1.0%
	Carc. 1A, H350	

. **Additional information** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

. **Description of first aid measures**. **After inhalation**

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

. **After skin contact** Instantly wash with water and soap and rinse thoroughly.. **After eye contact** Rinse opened eye for several minutes under running water.. **After swallowing** In case of persistent symptoms consult doctor.. **Information for doctor**. **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

. **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire Fighting Measures

. **Extinguishing media**. **Suitable extinguishing agents**

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

. **Special hazards arising from the substance or mixture**

No further relevant information available.

(Contd. on page 3)

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Printing date 09/20/2016

Reviewed on 09/20/2016

Trade name DRYPROTECTOR PRIMER SM FMT

(Contd. of page 2)

- . **Advice for firefighters**
- . **Protective equipment:** No special measures required.

6 Accidental release measures

- . **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Avoid causing dust.
- . **Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
- . **Methods and material for containment and cleaning up:** Collect mechanically.
- . **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

7 Handling and storage

- . **Handling**
- . **Precautions for safe handling**
No special measures required.
Store in cool, dry place in tightly closed containers.
Prevent formation of dust.
- . **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

Dust can combine with air to form an explosive mixture.

- . **Conditions for safe storage, including any incompatibilities**
- . **Storage**
- . **Requirements to be met by storerooms and containers:**
Store only in the original container.
Static charges may build up in the powder
- . **Information about storage in one common storage facility:** Not required.
- . **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
- . **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- . **Additional information about design of technical systems:** No further data; see item 7.
- . **Control parameters**
- . **Components with critical values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

13463-67-7 titanium dioxide

PEL (U.S.A)	Long-term value: 15* mg/m ³ *total dust
REL (U.S.A)	See Pocket Guide App. A
TLV (U.S.A)	Long-term value: 10 mg/m ³ withdrawn from NIC
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction; IARC 2B

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Printing date 09/20/2016

Reviewed on 09/20/2016

Trade name DRYPROTECTOR PRIMER SM FMT

(Contd. of page 3)

EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m ³ A4
14808-60-7 quartz (SiO₂)	
PEL (U.S.A)	see Quartz listing
REL (U.S.A)	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV (U.S.A)	Long-term value: 0.025* mg/m ³ *as respirable fraction
EL (Canada)	Long-term value: 0.025 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.10* mg/m ³ *respirable fraction
LMPE (Mexico)	Long-term value: 0.025* mg/m ³ A2, *fracción respirable

. Additional information:

The lists that were valid during the compilation were used as basis.

. Exposure controls

. Personal protective equipment

. General protective and hygienic measures

Wash hands during breaks and at the end of the work.

. Breathing equipment:



In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

. Protection of hands:



Protective gloves.

. Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

. Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

. Eye protection:



Safety Glasses

. Body protection: Protective work clothing.

9 Physical and Chemical Properties

. Information on basic physical and chemical properties

. General Information

. Appearance:

Form:

Solid

Colour:

According to Trade Name

. Smell:

Characteristic

. Odor threshold:

Not determined

(Contd. on page 5)

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Trade name DRYPROTECTOR PRIMER SM FMT

(Contd. of page 4)

. pH-value:	Not applicable
. Change in condition	
Melting point/Melting range:	> 50 °C / 120°F
Boiling point/Boiling range:	> 260 °C (> 500 °F)
	Not applicable
. Flash point:	Not applicable
. Inflammability (solid, gaseous)	Not determined
. Ignition temperature:	410 °C (770 °F)
. Decomposition temperature:	Not determined
. Self-inflammability:	Product is not selfigniting.
. Danger of explosion:	Product is not explosive. However, formation of explosive air/dust mixtures is possible
. Critical values for explosion:	
Lower:	Not determined.
Upper:	Not determined.
. Steam pressure:	Not applicable.
. Density (Specific gravity) at 20 °C (68 °F)	1.61 g/cm ³ (13.435 lbs/gal)
. Relative density	Not determined.
. Vapor density	Not applicable.
. Evaporation rate	Not applicable.
. Solubility in / Miscibility with	
Water:	Unsoluble
. Partition coefficient (n-octanol/water):	Not determined.
. Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
. Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
. Other information	No further relevant information available.

10 Stability and Reactivity

- . **Reactivity** No further relevant information available.
- . **Chemical stability**
- . **Conditions to be avoided:** No decomposition if used according to specifications.
- . **Possibility of hazardous reactions** No dangerous reactions known
- . **Conditions to avoid** No further relevant information available.
- . **Incompatible materials:** No further relevant information available.
- . **Hazardous decomposition products:** In case of fire: CO, CO₂, NO_x

11 Toxicological Information

- . **Information on toxicological effects**
- . **Acute toxicity:**
- . **Primary irritant effect:**
- . **on the skin:** No irritant effect.
- . **on the eye:** No irritant effect.
- . **Sensitization:** Sensitization possible by skin contact.
- . **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the
General EC Classification Guidelines for Preparations as issued in the latest version:

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Reviewed on 09/20/2016

Trade name **DRYPROTECTOR PRIMER SM FMT**

(Contd. of page 5)

Irritant

. Carcinogenic categories

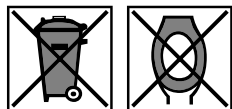
. IARC (International Agency for Research on Cancer)		
13463-67-7	titanium dioxide	2B
7631-86-9	silicon dioxide, chemically prepared	3
112926-00-8	Silicon dioxide	3
14808-60-7	quartz (SiO ₂)	1
. NTP (National Toxicology Program)		
14808-60-7	quartz (SiO ₂)	K
. OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- . **Toxicity**
- . **Aquatic toxicity:** No further relevant information available.
- . **Persistence and degradability** No further relevant information available.
- . **Behaviour in environmental systems:**
- . **Bioaccumulative potential** No further relevant information available.
- . **Mobility in soil** No further relevant information available.
- . **Ecotoxical effects:**
- . **Remark:** Harmful to fish
- . **Additional ecological information:**
- . **General notes:**
Generally not hazardous for water.
Harmful to aquatic organisms
- . **Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **Other adverse effects** No further relevant information available.

13 Disposal considerations

- . **Waste treatment methods**
- . **Recommendation**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- . **Uncleaned packagings:**
- . **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- . **UN-Number** N/A
- . **UN proper shipping name** N/A
- . **Transport hazard class(es)**
- . **DOT, IMDG, IATA**
- . **Class** Not regulated.
- . **Packing group** N/A
- . **Environmental hazards:**
- . **Marine pollutant:** No
- . **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

(Contd. on page 7)

Printing date 09/20/2016

Reviewed on 09/20/2016

Trade name **DRYPROTECTOR PRIMER SM FMT**

(Contd. of page 6)

* 15 Regulatory information

. **Safety, health and environmental regulations/legislation specific for the substance or mixture**

. **SARA (Superfund Amendments and Reauthorization Act):**

. **Section 355 (Extremely hazardous substances):**

None of the ingredients is listed.

. **Section 313 (Specific toxic chemical listings):**

1344-28-1	aluminium oxide
-----------	-----------------

. **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

. **Proposition 65:**

. **Chemicals known to cause cancer:**

13463-67-7	titanium dioxide
------------	------------------

14808-60-7	quartz (SiO ₂)
------------	----------------------------

. **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

. **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

. **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

. **Carcinogenicity categories**

. **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

. **TLV (Threshold Limit Value established by ACGIH)**

13463-67-7	titanium dioxide	A4
------------	------------------	----

1344-28-1	aluminium oxide	A4
-----------	-----------------	----

14808-60-7	quartz (SiO ₂)	A2
------------	----------------------------	----

1314-23-4	zirconium dioxide	A4
-----------	-------------------	----

. **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7	titanium dioxide
------------	------------------

14808-60-7	quartz (SiO ₂)
------------	----------------------------

. **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

. **Hazard pictograms**



GHS08

. **Signal word** Danger

. **Hazard-determining components of labeling:**

quartz (SiO₂)

. **Hazard statements**

May cause cancer.

May form combustible dust concentrations in air.

. **Precautionary statements**

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If exposed or concerned: Get medical advice/attention.

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Printing date 09/20/2016

Reviewed on 09/20/2016

Trade name DRYPROTECTOR PRIMER SM FMT

(Contd. of page 7)

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H350 May cause cancer.

. Date of preparation / last revision 09/20/2016 / -**. Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Carc. 1A: Carcinogenicity - Category 1A

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

. * Data compared to the previous version altered.

US



Safety Data Sheet

24 Hour Emergency Phone Numbers
Medical/Poison Control:
In U.S.: Call 1-800-222-1222

Outside U.S.: Call your local poison control center

Transportation/National Response Center:

1-800-535-5053
1-352-323-3500

NOTE: The National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

IMPORTANT: Provide this information to employees, customers, and users of this product. Read this SDS before handling or disposing of this product. This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accordance with requirements of this standard. All abbreviated terms used in this SDS are further described in Section 16.

1. Identification

This Safety Data Sheet is available in American Spanish upon request.
Los Datos de Seguridad pueden obtenerse en Espanol si lo requiere.

Product Name:	Plaster of Paris	Revision Date:	9/6/2018
Product UPC Number:	070798103085, 070798103108, 070798103122, 070798103184, 070798103139	Supersedes Date:	6/19/2015
Product Use/Class:	Plaster of Paris	SDS No:	00071008001
Manufacturer:	DAP Products Inc. 2400 Boston Street Suite 200 Baltimore, MD 21224-4723 888-327-8477 (non - emergency matters)	Preparer:	Regulatory and Environmental Affairs
	SDS Coordinator: MSDS@dap.com		
	Emergency Telephone: Transportation: 1-800-535 -5053 1-352-323-3500 Poison Control: 1-800-222-1222		

2. Hazards Identification

GHS Classification

Acute Tox. 4 Inhalation, Carc. 1A

Symbol(s) of Product**Signal Word**

Danger

Possible Hazards

80% of the mixture consists of ingredients of unknown acute toxicity

GHS HAZARD STATEMENTS

Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Carcinogenicity, category 1A	H350	May cause cancer.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
Plaster of paris	26499-65-0	60-80	No Information	No Information
Limestone	1317-65-3	10-30	No Information	No Information
Quartz	14808-60-7	0.5-1.5	GHS07	H302

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

FIRST AID - SKIN CONTACT: Wash skin with soap and water for 15 minutes. Get medical aid if symptoms persist.

FIRST AID - EYE CONTACT: In case of contact, immediately flush eyes with large quantities of water for at least 15 minutes until irritation subsides. Get medical attention immediately.

FIRST AID - INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: No Information

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear. Use water spray to cool exposed surfaces.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: No Information

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Sweep up excess powder. Place remaining powder into containers.

7. Handling and Storage

HANDLING: KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY. Use only with adequate ventilation. Ensure fresh air entry during application and drying. Do not breathe dust. Removal of this product after use will result in the generation of Dust. If dry-sanded, exposure to dust may result in the build-up of material in eyes, ears, nose, and mouth which may cause irritation. While dry sanding, use of a NIOSH-approved dust mask is recommended. Wash thoroughly after handling.

STORAGE: Store away from caustics and oxidizers. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
Plaster of paris	N.E.	N.E.	15 mg/m ³ TWA total dust, 5 mg/m ³ TWA respirable fraction	N.E.
Limestone	N.E.	N.E.	15 mg/m ³ TWA total dust, 5 mg/m ³ TWA respirable fraction	N.E.
Quartz	0.025 mg/m ³ TWA respirable particulate matter	N.E.	50 µg/m ³ TWA	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: Dust safety masks recommended where working powder concentration is more than 10 mg/m³. When concentrations exceed the exposure limits specified, use of a NIOSH-approved dust, mist and fume respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a full facepiece, supplied air, or Self Contained Breathing Apparatus (SCBA) may be necessary. If concentrations exceed the exposure limits specified, use of a NIOSH-approved supplied air respirator is recommended. Where the protection factor is exceeded, use of a Self Contained Breathing Apparatus (SCBA) may be necessary. National Institute for Occupational Safety and Health (NIOSH) has recommended that the permissible exposure limit be changed to 50 micrograms respirable free silica per cubic meter of air (0.05 mg/m³) as determined by a full shift sample up to 10-hour work shift. A respiratory protection program that meets the OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.



SKIN PROTECTION: Wear protective gloves.



EYE PROTECTION: Goggles or safety glasses with side shields.



OTHER PROTECTIVE EQUIPMENT: Provide eyewash. Provide coveralls if body contact may occur.



HYGIENIC PRACTICES: Remove and wash contaminated clothing before re-use.

9. Physical and Chemical Properties

Appearance:	White to Off-White	Physical State:	Powder
Odor:	Little or No	Odor Threshold:	Not Established
Density, g/cm³:	2.91 - 2.91	pH:	Not Applicable
Freeze Point, °C:	Not Established	Viscosity (mPa.s):	Not Established
Solubility in Water:	No Information	Partition Coeff., n-octanol/water:	Not Established
Decomposition Temperature, °C:	Not Established	Explosive Limits, %:	N.I. - N.I.
Boiling Range, °C:	N.I. - N.I.	Auto-Ignition Temperature, °C	Not Established
Minimum Flash Point, °C:	No Information	Vapor Pressure, mmHg:	Not Established
Evaporation Rate:	Not Applicable	Flash Method:	Not Applicable
Vapor Density:	Not Applicable	Flammability:	Non-Flammable
Combustibility:	Does not support combustion		

(See "Other information" Section for abbreviation legend)

(If product is an aerosol, the flash point stated above is that of the propellant.)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Do not breathe dust. Avoid dust formation in confined areas. Excessive heat and freezing.

INCOMPATIBILITY: Incompatible with strong bases and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Above 1450 degree C: SO₂ and CaO.

11. Toxicological Information

EFFECT OF OVEREXPOSURE - INHALATION: Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes). Prolonged, repeated, or high exposures may cause irritation to the respiratory tract (nose, mouth, mucous membranes).

EFFECT OF OVEREXPOSURE - SKIN CONTACT: May cause dry skin. May cause skin irritation. May cause skin irritation in susceptible persons. May develop enough heat to cause burns if a large mass such as a cast of hand or arm, is kept in contact with skin while hardening.

EFFECT OF OVEREXPOSURE - EYE CONTACT: May cause eye irritation. Signs and symptoms may include: pain, tears, swelling, redness and blurred vision. May cause eye irritation.

EFFECT OF OVEREXPOSURE - INGESTION: Under normal use conditions, this product is not expected to cause adverse health effects. Single dose oral toxicity is very low. Amounts ingested incidental to industrial handling are not likely to cause injury; however, ingestion of large amounts may cause injury. Ingestion may cause irritation to mucous membranes. Ingestion may result in obstruction when material hardens.

CARCINOGENICITY: No Information

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: Contains Crystalline Silica which has been determined to be carcinogenic to humans (1) by IARC when in respirable form. Risk of cancer depends upon duration and level of inhalation exposure to dust from sanding the dried paint or spray mist. The International Agency for Research on Cancer (IARC) has determined that crystalline silica in the form of quartz or cristobalite that is inhaled from occupational sources is carcinogenic to humans (Group 1- carcinogenic to humans). Refer to IARC Monograph 68, Silica, Some Silicates and Organic Fibres (published in June 1997) in conjunction with the use of these materials. The National Toxicology Program (NTP) classifies respirable crystalline silica as "known to be a human carcinogen". Refer to the 9th Report on Carcinogens (2000). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (Group A2). Breathing dust containing respirable crystalline silica may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may have the following serious chronic health effects: Excessive inhalation of respirable dust can cause pneumoconiosis, a respiratory disease, which can result in delayed, progressive, disabling and sometimes fatal lung injury. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. Smoking exacerbates this disease. Individuals with pneumoconiosis are predisposed to develop tuberculosis. There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoints such as scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin and other internal organs) and kidney disease. Prolonged or repeated inhalation of dust may cause lung damage.

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
26499-65-0	Plaster of paris	>2000 mg/kg Rat	N.I.	>20 mg/L
1317-65-3	Limestone	6450 mg/kg Rat	>2000 mg/kg	>20 mg/L
14808-60-7	Quartz	500 mg/kg Rat	>2000 mg/kg	>20 mg/L

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Ecological injuries are not known or expected under normal use.

13. Disposal Information

DISPOSAL INFORMATION: This product does not meet the definition of a hazardous waste according to U.S. EPA Hazardous Waste Management Regulation, 40 CFR Section 261. Dispose as hazardous waste according to all local, state, federal and provincial regulations. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

DOT UN/NA Number:	N.A.
DOT Proper Shipping Name:	Not Regulated.
DOT Technical Name:	N.A.
DOT Hazard Class:	N.A.
Hazard SubClass:	N.A.
Packing Group:	N.A.

15. Regulatory Information**SARA SECTION 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

No Sara 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

All ingredients in this product are either on TSCA inventory list, or otherwise exempt.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

Revision Date: 9/6/2018 **Supersedes Date:** 6/19/2015

Reason for revision: Revision Description Changed
 Substance and/or Product Properties Changed in Section(s):
 01 - Product Information
 02 - Hazards Identification
 08 - Exposure Controls/Personal Protection
 09 - Physical & Chemical Information
 11 - Toxicological Information
 15 - Regulatory Information
 Product Composition Changed
 Substance Regulatory CAS Number Changed
 Substance Hazardous Flag Changed
 Substance Hazard Threshold % Changed
 Revision Statement(s) Changed

Datasheet produced by: Regulatory Department

HMIS Ratings:

Health:	Flammability:	Reactivity:	Personal Protection:
2	0	0	X

VOC Less Water Less Exempt Solvent, g/L: 0.0

VOC Material, g/L: 0

VOC as Defined by California Consumer Product Regulation, Wt/Wt%: 0.0

VOC Actual, Wt/Wt%: 0.0

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H302 Harmful if swallowed.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS07



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

DAP believes the data and statements contained herein are accurate as of the date hereof. They are offered in good faith as typical values and not as a product specification. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE WITH REGARD TO THE INFORMATION HEREIN PROVIDED OR THE PRODUCT TO WHICH THE INFORMATION REFERS. Since this document is intended only as a guide to the appropriate use and precautionary handling of the referenced product by a properly trained person, it is therefore the responsibility of the user to (i) review the recommendations with due consideration for the specific context of the intended use and (ii) determine if they are appropriate.



SAFETY DATA SHEET

1. Identification

Product identifier	COPPER NITRATE TECHNICAL AND REAGENT	
Other means of identification		
Product code	1266,1732	
Synonym(s)	Copper (II) Nitrate, Trihydrate (CAS# 10031-43-3) * Cupric Nitrate, Anhydrous (CAS# 3251-23-8)	
Recommended use	Not available.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufacturer		
Manufacturer / Supplier:	The Shepherd Chemical Company	Distributed by
Address:	4900 Beech Street	The Science Company
	Norwood, Ohio 45212 USA	7625 W Hampden Ave, #14
Telephone:	513-731-1110	Lakewood CO 80227
Fax:	513-731-2151	Ph: 303-777-3777
Emergency USA:	CHEMTREC: 800-424-9300	sales@sciencecompany.com
Emergency International:	CHEMTREC: 00 1 703-527-3887	Cat. No. NC-0303, NC-7972,
Emergency EU	+112	NC-10229

2. Hazard(s) identification

Physical hazards	Oxidizing solids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger	
Hazard statement	May intensify fire; oxidizer. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.	
Precautionary statement		
Prevention	Keep away from heat. Take any precaution to avoid mixing with combustibles. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/eye protection/face protection.	
Response	If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see this label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	Not applicable.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
COPPER (II) NITRATE, TRIHYDRATE	Cupric Nitrate, Anydrous (CAS# 3251-23-8)	10031-43-3	100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	May intensify fire; oxidizer.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	May intensify fire; oxidizer.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Collect spillage. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep away from heat. Take any precaution to avoid mixing with combustibles. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Keep away from heat. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Do not store near combustible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Percent	Form
COPPER (II) NITRATE, TRIHYDRATE (10031-43-3)	PEL	1 mg/m3	100%	(as Cu) Dust and mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Percent	Form
COPPER (II) NITRATE, TRIHYDRATE (10031-43-3)	TWA	1 mg/m3	100%	(as Cu) Dust and mist.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Percent	Form
COPPER (II) NITRATE, TRIHYDRATE (10031-43-3)	TWA	1 mg/m3	100%	(as Cu) Dust and mist.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear eye/face protection. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Solid.

Color Blue.

Odor Slight nitric acid odor.

Odor threshold Not available.

pH Not available.

Melting point/freezing point 491 °F (255 °C) estimated

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0 hPa estimated

Vapor density Not available.

Relative density Not available.

Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Loose Packing Density	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Contact with incompatible materials.
Incompatible materials	Incompatible with easily oxidizable materials.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
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Information on toxicological effects

Acute toxicity	Harmful if swallowed.
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Components	Species	Test Results
COPPER (II) NITRATE, TRIHYDRATE (CAS 10031-43-3)		
Acute		
<i>Oral</i>		
LD50	Rat	940 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.
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Product		Species	Test Results
COPPER (II) NITRATE, TRIHYDRATE (CAS Mixture)			
Crustacea	EC50	Daphnia	0.2877 mg/l, 48 hours estimated
Fish	LC50	Fish	0.917 mg/l, 96 hours estimated
Components		Species	Test Results
COPPER (II) NITRATE, TRIHYDRATE (CAS 10031-43-3)			
Aquatic			
Crustacea	EC50	Water flea (Moina dubia)	0.037 - 0.044 mg/l, 48 hours
Fish	LC50	Winter flounder (Pleuronectes americanus)	0.057 - 0.1061 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1477
UN proper shipping name	NITRATES, INORGANIC, N.O.S. (CUPRIC NITRATE), MARINE POLLUTANT
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Label(s)	5.1
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB8, IP3, T1, TP33
Packaging exceptions	152
Packaging non bulk	213
Packaging bulk	240

DOT BULK

UN number	UN1477
UN proper shipping name	NITRATES, INORGANIC, N.O.S. (CUPRIC NITRATE RQ = 100 LBS)
Transport hazard class(es)	
Class	5.1
Subsidiary risk	-
Label(s)	5.1
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	62, IB5, IP1
Packaging exceptions	None

Packaging non bulk 211
Packaging bulk 242

IATA

UN number UN1477
UN proper shipping name NITRATES, INORGANIC, N.O.S. (CUPRIC NITRATE)
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Label(s) 5.1
Packing group III
Environmental hazards yes
ERG Code 5L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Forbidden.
Cargo aircraft only Allowed.

IMDG

UN number UN1477
UN proper shipping name NITRATES, INORGANIC, N.O.S. (CUPRIC NITRATE), MARINE POLLUTANT
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

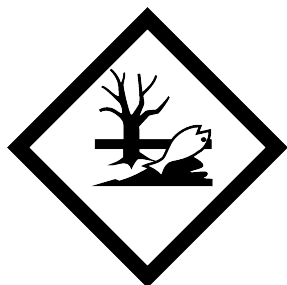
DOT



DOT BULK; IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

COPPER (II) NITRATE, TRIHYDRATE (CAS 10031-43-3) LISTED

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

No

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
COPPER COMPOUNDS N100	10031-43-3	100
NITRATE COMPOUNDS (WATER DISSOCIABLE) N511		100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

COPPER (II) NITRATE, TRIHYDRATE (CAS 10031-43-3)

US. New Jersey Worker and Community Right-to-Know Act

500 LBS

US. Pennsylvania RTK - Hazardous Substances

COPPER (II) NITRATE, TRIHYDRATE (CAS 10031-43-3)

US. Rhode Island RTK

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 07-15-2014

Revision date 07-17-2014

Version # 02

Disclaimer ALTHOUGH THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN (HEREINAFTER "INFORMATION") ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE HEREOF, THE SHEPHERD CHEMICAL COMPANY MAKES NO REPRESENTATIONS AS TO THE COMPLETENESS OR ACCURACY THEREOF. INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR PURPOSES PRIOR TO USE. IN NO EVENT WILL THE SHEPHERD CHEMICAL COMPANY BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS. The information in the sheet was written based on the best knowledge and experience currently available.

Revision Information Transport Information: Material Transportation Information

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: Cupric Chloride, Dihydrate

Product Code(s): NC-2010, NC-6721, C1009, C1044

Synonyms: Copper (II) Chloride, Dihydrate; Cupric Dichloride, Dihydrate

Recommended Use: For manufacturing, industrial, and laboratory use only. Use as a catalyst or as a laboratory reagent.

Uses Advised Against: Not for food, drug, or household use.

Supplier: Science Company
7625 W Hampden Ave #14 Lakewood CO 80227
Phone: (303) 777-3777 Fax: (303) 777-3331

Emergency Phone Number: (800) 255-3924 (CHEM-TEL)

2. HAZARDS IDENTIFICATION

Hazard Classifications:

Acute Toxicity – Oral:	Category 4
Acute Toxicity – Dermal:	Category 4
Skin Corrosion/Irritation:	Category 2
Eye Damage/Irritation:	Category 2A
Corrosive to Metals:	Category 1

Signal Word: WARNING

Hazard Statements:

- Harmful if swallowed.
- Harmful in contact with skin.
- Causes skin irritation.
- Causes serious eye irritation.
- May be corrosive to metals.

Pictograms:



Precautionary Statements:

Prevention:	Wash thoroughly after handling. Do not eat, drink, or smoke while using this product. Wear protective gloves, protective clothing, eye protection, and face protection. Keep only in original container.
Response:	If swallowed: Call a poison center or doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. Call a poison center or doctor if you feel unwell. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Absorb spillage to prevent material damage.
Storage:	Store in corrosive resistant container with a resistant inner liner.
Disposal:	Dispose of contents and container in accordance with local, regional, national, and international regulations.
Hazards Not Otherwise Classified:	Toxic to aquatic life with long lasting effects.
Toxicity Statement:	Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Cupric Chloride, Dihydrate	Copper (II) Chloride, Dihydrate	10125-13-0	$\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$	≥ 97.0

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES**First Aid Procedures:**

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician if symptoms occur.
Ingestion:	Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin Contact:	Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.
Eye Contact:	Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation persists.
General Advice:	Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms and Effects:	Inhalation may cause respiratory irritation. Ingestion may cause headache, nausea, vomiting, burns, weak pulse, cold sweat, convulsions. Skin contact may cause irritation,

burns, rash, allergic reaction, and skin discoloration. Eye contact may cause irritation, burns, and conjunctivitis.

**Immediate Medical Care/
Special Treatment:**

Get medical attention if feeling unwell or concerned. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products: Cupric oxides, hydrogen chloride.

Specific Hazards: Excessive thermal conditions may yield corrosive and/or toxic fumes.

**Special Protective Equipment/
Precautions for Firefighters:** As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Ventilate area of leak or spill. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Prevent entry into waterways, sewer, basements, or confined areas. Avoid generation of product dust. Product should not be released to the environment. Contain and recover waste when possible.

Methods for Cleanup: Sweep up or collect spill and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin, eyes, and clothing. Avoid generation of dust. Do not breathe product dust. Limit exposure to moisture. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area. Store away from heat and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: Copper: ACGIH (TLV): 1 mg/m³
NIOSH (TWA): 1 mg/m³

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or safety goggles. Wear a face shield. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

Appearance: Green, opaque, crystalline solid.

Odor: Odorless.

Odor Threshold: No information found.

Formula Weight: 170.48

pH: < 4.0 (0.2 M aqueous)

Melting/Freezing Point: 110 °C

Boiling Point/Range: No information found.

Decomposition Temperature: > 110 °C

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not flammable.

Flammability/Explosive Limits: Not applicable.

Solubility: > 50% by weight in water.

Vapor Pressure: No information found.

Vapor Density: No information found.

Specific Gravity: 2.51 (Water = 1)

Evaporation Rate: No information found.

Viscosity:	No information found.
Partition Coefficient (n-octanol/water):	No information found.

10. STABILITY AND REACTIVITY

Reactivity Data:	May be corrosive to many materials, especially to metals.
Chemical Stability:	Stable under normal conditions. Hygroscopic.
Conditions to Avoid:	Excessive heat, exposure to moisture, incompatible materials.
Incompatible Materials:	Metals, strong acids, alkali metals.
Hazardous Decomposition Products:	Cupric oxides, hydrogen chloride.
Possibility of Hazardous Reactions:	May react vigorously or violently with the incompatible materials listed above. Excessive thermal conditions or contact with incompatible materials may yield hazardous decomposition products listed above.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact.
Acute Effects:	Harmful if swallowed or contacted with the skin or eyes. May be harmful if inhaled.
Chronic Effects:	Prolonged or repeated exposure may cause liver effects, kidney effects, allergic reaction, dermatitis, conjunctivitis, and anemia.
Toxicological Data:	LD ₅₀ Oral, Rat: 336 mg/kg LD ₅₀ Dermal, Rabbit: 1224 mg/kg Irritating to eyes and skin based on animal data.
Symptoms of Exposure:	Irritation, burns, headache, nausea, vomiting, cold sweat, weak pulse, jaundice, convulsions, rash, skin discoloration.
Carcinogenic Effects:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	LC ₅₀ , Carp (Cyprinus carpio): 0.12 - 0.23 mg/L 96 h LC ₅₀ , Bluegill (Lepomis macrochirus): 0.9 mg/L 96 h
Persistence and Degradability:	May bioaccumulate and may not be readily biodegradable.
Environmental Effects:	Toxic to all aquatic organisms. Avoid exposure to the environment.

13. DISPOSAL INFORMATION

Disposal Instructions:	Dispose of this material and its container to an approved waste collection point. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or
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into sewers. All wastes must be handled in accordance with local, state, and federal regulations.

Contaminated Packaging: Because emptied containers may retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: D002: Waste Corrosive Material (pH \leq 2 or pH \geq 12.5 or corrosive to steel)

14. TRANSPORT INFORMATION

DOT:

UN Number: UN2802

Proper Shipping Name: Copper chloride

Hazard Class: 8

Packing Group: III

ERG Number: 154

Environmental Hazard Regulations: Cupric Chloride: IMDG Marine Pollutant

Other Transport Precautions: DOT Reportable Quantity: 10 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the US TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: Copper (II) Chloride Dihydrate

CERCLA Reportable Quantities: 10 lb

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed components of this product comply with the inventory requirements administered by the governing country or region.

16. OTHER INFORMATION**Disclaimer:**

The Science Company provides the information in this Safety Data Sheet in the belief that it is reliable but assumes no responsibility for its completeness or accuracy. The physical properties reported in this SDS are obtained from literature and do not constitute product specifications. The Science Company makes and gives no representations or warranties with respect to the information contained herein or the product to which it refers, whether express, implied, or statutory, including without limitation, warranties of accuracy, completeness, merchantability, non-infringement, performance, safety, suitability, stability, and fitness for a particular purpose. No warranty against infringement of any patent, copyright or trademark is made or implied. This SDS is intended only as a guide to the appropriate handling of the material by a properly trained person. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. Accordingly, the Science Company assumes no liability whatsoever for the use of or reliance upon this information including results obtained, incidental or consequential damages, or lost profits.

Issue Date:

August 16, 2016

Reason for Revision:

Not applicable.



Safety Data Sheet

1. IDENTIFICATION

Product Identifier: Ammonium Chloride

Product Code(s): NC-0046, NC-8601, A1039, A1056, 1342A-13PO

Synonyms: Salmiac; Ammonium Muriate; Amchlor

Recommended Use: For manufacturing, industrial, and laboratory use only. Use as a catalyst or as a laboratory solute.

Uses Advised Against: Not for food, drug, or household use.

Supplier: The Science Company
7625 W Hampden Ave #14 Lakewood CO 80227
Phone: (303) 777-3777 Fax: (303) 777-3331

Emergency Phone Number: For health emergency, call Poison Control: (800) 222-1222.

2. HAZARDS IDENTIFICATION

Hazard Classifications: Acute Toxicity – Oral: Category 4
Eye Damage/Irritation: Category 2A

Signal Word: WARNING

Hazard Statements: Harmful if swallowed.
Causes serious eye irritation.

Pictograms:



Precautionary Statements:

Prevention: Wash thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Wear protective gloves, protective clothing, eye protection, and face protection.

Response: If swallowed: Call a poison center or doctor if you feel unwell. Rinse mouth.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage: Not applicable.

Disposal: Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified: Toxic to aquatic organisms. Avoid exposure to the environment.

Toxicity Statement: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Ammonium Chloride	Salmiac	12125-02-9	NH ₄ Cl	≥ 99.5

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician if symptoms occur.

Ingestion: Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a physician or poison control center if you feel unwell.

Skin Contact: Wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if symptoms occur.

Eye Contact: Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician if irritation persists.

General Advice: Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Irritation, coughing, sneezing, difficulty breathing, headache, nausea. Harmful if swallowed or exposed to the eyes. May be harmful inhaled or absorbed through the skin. May cause irritation to the skin, eyes, and gastrointestinal tract. Prolonged or repeated exposure may cause dermatitis.

Immediate Medical Care/ Special Treatment: Call a poison center or doctor if you feel unwell or are concerned. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products:

Nitrogen oxides, hydrogen chloride.

Specific Hazards:

Excessive thermal conditions may cause decomposition and yield hazardous combustion products listed above.

Special Protective Equipment/Precautions for Firefighters:

As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment:

Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures:

In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment:

Prevent entry into waterways, sewer, basements, or confined areas. Avoid generation of product as dust. Product should not be released to the environment. Contain and recover crystal when possible.

Methods for Cleanup:

Sweep or collect spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling:

Wear personal protective equipment (see Section 8). Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work rooms. Limit exposure to moisture. Avoid contact with skin, eyes, and clothing. Avoid generation of dust. Do not breathe product dust. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage:

Store in a cool, dry, ventilated area. Store away from heat and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

ACGIH: TWA: 10 mg/m³
STEL: 20 mg/m³

Engineering Controls:

Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or goggles. Maintain approved eye washstation and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White, opaque, crystalline solid.

Odor: Odorless.

Odor Threshold: No information found.

Formula Weight: 53.49

pH: 5 (10% w/v aqueous at 25 °C)

Melting/Freezing Point: 340 °C

Boiling Point/Range: No information found.

Decomposition Temperature: No information found.

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not flammable.

Flammability/Explosive Limits: Not applicable.

Solubility: 370 g/L aqueous. Soluble in ammonia, alcohol.

Vapor Pressure: No information found.

Vapor Density: No information found.

Specific Gravity: 1.53 (Water = 1)

Evaporation Rate: No information found.

Viscosity: No information found.

Partition Coefficient (n-octanol/water): No information found.

10. STABILITY AND REACTIVITY

Reactivity Data: No information found.

Chemical Stability: Stable under normal conditions. Hygroscopic.

Conditions to Avoid:	Excessive heat, moisture, incompatible materials.
Incompatible Materials:	Strong oxidizers, strong acids.
Hazardous Decomposition Products:	Sodium oxides, hydrogen chloride.
Possibility of Hazardous Reactions:	May react vigorously or violently with the incompatible materials listed above. Excessive thermal conditions may yield hazardous decomposition products listed above.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact.
Acute Effects:	Harmful if swallowed or exposed to the eyes. May be harmful inhaled or absorbed through the skin. May cause irritation to the skin, eyes, and gastrointestinal tract.
Chronic Effects:	Prolonged or repeated exposure may cause dermatitis.
Toxicological Data:	LD ₅₀ Oral, Rat: 1650 mg/kg Causes eye irritation based on animal data.
Symptoms of Exposure:	Irritation, coughing, sneezing, difficulty breathing, headache, nausea.
Carcinogenic Effects:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	EC ₅₀ , Water Flea (<i>Daphnia magna</i>):	161 mg/L 48 h
	LC ₅₀ , Fathead Minnow (<i>Pimephales promelas</i>):	1.51 mg/L 96 h
	LC ₅₀ , Rainbow Trout (<i>Oncorhynchus mykiss</i>):	3.98 mg/L 96 h
Persistence and Degradability:	No information found.	
Environmental Effects:	Toxic to aquatic organisms. Avoid release to the environment.	

13. DISPOSAL INFORMATION

Disposal Instructions:	Dispose of this material and its container to an approved waste collection point. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers. All wastes must be handled in accordance with local, state, and federal regulations.
Contaminated Packaging:	Because containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.
Waste Codes:	No information found.

14. TRANSPORT INFORMATION

DOT: Not regulated.

Environmental Hazard Regulations: No information found.

Other Transport Precautions: No information found.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	No
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: No information found.

CERCLA Reportable Quantities: No information found.

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

16. OTHER INFORMATION

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Issue Date:

May 18, 2015

Reason for Revision:

Not applicable.