

PERSONAL PROTECTION INDEX									
A						G	+ +		
B	+					H	+ + +		
C	+ +					I	+ +		
D	+ +					J	+ + +		
E	+ +					K	+ + +		
F	+ + +					X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions		
A		n		o		p		q	
Goggles	None	Hard hat	None	Face Mask & Eye Protection	None	None	None	Shoeprotect	None
r		s		t		u		v	
Shoeprotect	None	Boots	None	Face Mask & Eye Protection	None	None	None	Shoeprotect	None
w		x		y		z		aa	
None	None	None	None	Face Mask & Eye Protection	None	None	None	Shoeprotect	None

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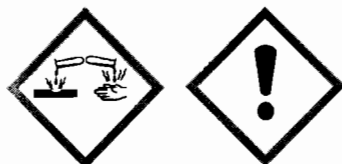
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GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:

Health, Acute toxicity, 4 Oral
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 1

GHS Phrases:

H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage

GHS Precautionary Statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P281 - Use personal protective equipment as required.
P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P321 - Specific treatment (see supplementary first aid instructions on this label).
P332+313 - If skin irritation occurs: Get medical advice/attention.
P337+313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P405 - Store locked up.
P410+412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
P501 - Dispose of contents/container to an approved waste disposal plant.

Health Hazards: Not to be expected if handled and used properly. Health hazard assignment applies to concentrated product only. When this product is used at the dilutions recommended by Titan Laboratories, it attributes minimal to no health hazards, acute or chronic, to the end user.

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3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
N/A	80-89%	Proprietary, non-hazardous, non-regulated
68439-46-3	10-15%	Alcohols, C9-11, ethoxylated
68130-47-2	1-5%	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates

4 FIRST AID MEASURES

Inhalation:	Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
Skin Contact:	Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention.
Eye Contact:	Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses is present and easy to do so. If eye irritation persists, obtain medical attention.
Ingestion:	Rinse mouth with water. Do NOT induce vomiting unless instructed to do so. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11.

Indication of any immediate medical attention and special treatment needed:

No data available.

5 FIRE FIGHTING MEASURES

Flammability:	No data available
Flash Point:	DNA
Flash Point Method:	DNA
Burning Rate:	No data available
Autoignition Temp:	No data available
LEL:	DNA
UEL:	DNA

Extinguishing Media:

Water Spray
Water Fog
Carbon Dioxide
Alcohol-Resistant Foam
Dry Chemical

Special Hazards Arising From the Substance or Mixture:

Aldehydes Carbon
Oxides Hydrocarbon
particulate Hydrogen
Chloride gas

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Nitrogen Oxides (NOx)
Phosphorous Oxides
Sodium Oxides
Sulfur Oxides

Advice for Firefighters:

Firefighters should wear full-face, positive-pressure respirators.

Further Information:

If incinerated, may release toxic fumes.
Use water spray to cool unopened containers.
Do NOT use high volume water jet to extinguish fire, as the force of the water jet may cause fire to spread.
See Section 7 for more information on safe handling.
See Section 8 for more information on personal protection equipment.
See Section 13 for disposal information.

6**ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures:**

Use personal protective equipment.
Keep from contacting skin or eyes.
Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

Environmental Precautions:

Prevent further release (leakage/spillage) if safe to do so.
Do not allow product to enter drains.
Do not allow to drain to environment.

Methods and Materials for Containments and Cleaning Up:

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).
Place contaminated material into suitable, closed containers for disposal.
Dispose of contaminated material according to Section 13.
After spillage has been collected, area may be flushed with water or wet-brushed.
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 information on proper disposal.

7**HANDLING AND STORAGE****Handling Precautions:**

Avoid breathing vapors or mist.
Avoid contact with eyes, skin, or clothing.
Keep containers closed when not in use.
Do not expose containers to open flame, excessive heat, or direct sunlight.
Keep away from sources of ignition.
Do not smoke while using material.
Do not puncture or drop containers.
Handle with care and avoid spillage on the floor (slippage).

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Storage Requirements:

Keep material out of reach of children.
Keep material away from incompatible materials.
Wash thoroughly after handling.
Keep container tightly closed.
Store in a well-ventilated place.
Do not store at temperatures exceeding 50 °C/122 °F.
Do not store in direct sunlight.
Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents, Alcohols, Amines, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Copper and its alloys, Iron, rubber, and materials that are reactive with Hydroxyl compounds.

8**EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Controls:**

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

Personal Protective Equip:**Eye/face protection:**

When using material use safety glasses and gloves according to HMIS PP, B. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:

Handle with gloves made from PVC, Neoprene or Nitrile. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection:

Chemically resistant gloves, and safety glasses are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:

Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.

Control of environmental exposure:

Prevent leakage or spillage if safe to do so. Do not let material enter drains.

Components with workplace control parameters:

Contains no substances with occupational exposure limit values.

Biological occupational exposure limits:

Contains no substances with biological occupational exposure limits values.

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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, blue liquid	Odor:	Pleasant
Physical State:	Liquid	Molecular Formula:	MIXTURE
Odor Threshold:	Not determined	Solubility:	100%
Particle Size:	Not determined	Softening Point:	Not determined
Spec Grav./Density:	1.028 g/ml (8.58 lbs/gal)	Percent Volatile:	1.02%
Viscosity:	Not determined	Heat Value:	Not determined
Sat. Vap. Conc.:	Not determined	Freezing/Melting Pt.:	Not determined
Boiling Point:	100.6 °C (213 °F)	Flash Point:	DNA
Flammability:	(solid, gas): Not determined	Octanol:	Not determined
Partition Coefficient:	Not determined	Vapor Density:	(air = 1): Not determined
Vapor Pressure:	(mm Hg @ 25 °C): 20	VOC:	10.3 g/l
pH:	@ 1%: 7.4	Bulk Density:	Not determined
Evap. Rate:	(N-Butyl Acetate = 1): Not determined	Auto-Ignition Temp:	Not determined
Molecular weight:	MIXTURE	UFL/LFL:	Not determined
Decomp Temp:	Not determined		

10 STABILITY AND REACTIVITY

Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Incompatibilities, flames, ignition sources.
Materials to Avoid:	Strong acids, strong bases, strong oxidizing agents, strong reducing agents, Alcohols, Amines, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Copper and its alloys, Iron, rubber, and materials that are reactive with Hydroxyl compounds.
Hazardous Decomposition:	Aldehydes, Carbon Oxides, Hydrocarbon particulate, Hydrogen Chloride gas, Nitrogen Oxides (NOx), Phosphorous Oxides, Sodium Oxides and Sulfur Oxides.
Hazardous Polymerization:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Component(s): Alcohols, C9-11, ethoxylated; Poly(oxy-1,2-ethanediyl), .alpha.-hydro.-omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates

CAS No(s): 68439-46-3; 68130-47-2

Acute Toxicity:

LD50 Oral - Rat: 3,950 mg/kg

LD50 Dermal - Rabbit: > 5,000 mg/kg

Skin Corrosion/Irritation: Rabbit skin - Corrosive (4 h).

Serious Eye Damage/Eye Irritation: Rabbit eyes - Severe eye irritation.

Respiratory or Skin Sensitation: No data available.

Germ Cell Mutagenicity: No data available.

Carcinogenicity:

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IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: No data available.

Specific Target Organ Toxicity - Single Exposure: No data available.

Specific Target Organ Toxicity - Repeated Exposure: No data available.

Aspiration Hazard: No data available.

Additional Information:

Component: Alcohols, C9-11, ethoxylated; RTECS: AX8100000

Component: Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates; RTECS: 1001516AS

12**ECOLOGICAL INFORMATION**

Component(s): Alcohols, C9-11, ethoxylated; Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates

CAS No(s): 68439-46-3; 68130-47-2

Toxicity:*Toxicity to fish:*

LC50 - Oncorhynchus mykiss (Rainbow Trout): 5.5 mg/l (96 h)

LC50 - Pimephales promelas (Fathead Minnow): 8.5 mg/l (144 h)

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water Flea): 5.3 mg/l (48 h)

Persistence and Degradability:

Readily biodegradable.

Bioaccumulative potential:

No data available.

Mobility in Soil:

No data available.

Results of PBT and vPvB assessment:

Not required/conducted.

Other Adverse Effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

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13 DISPOSAL CONSIDERATIONS

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION**DOT (US)**

Non-regulated material, liquid

IMDG

Non-regulated material, liquid

IATA

Non-regulated material, liquid

15 REGULATORY INFORMATION**COMPONENT / (CAS/PERC) / CODES**

*Alcohols, C9-11, ethoxylated (68439463 10-15%) SARA311/312, TSCA

*Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C8-10-alkyl ethers, phosphates (68130472 1-5%) TSCA

REGULATORY KEY DESCRIPTIONS

SARA311/312 = SARA 311/312 Toxic Chemicals

TSCA = Toxic Substances Control Act

16 OTHER INFORMATION**Disclaimer:**

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Titan Laboratories believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of Titan Laboratories' control, Titan Laboratories makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

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