

1. Identification

Product identifier	Coolant/Lubricant
Other means of identification	
SDS number	06117
Part Number	812-530, 812-530-HAZ, 812-531, 812-531-HAZ, 812-532, 812-532-HAZ, 812-532-500, 812-532-500-HAZ
Recommended use	Metalworking Fluid
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Supplier	
Company name	LECO Corporation
Address	3000 Lakeview Avenue St. Joseph, MI 49085 United States
Telephone	269-983-5531
Website	www.leco.com
E-mail	info@leco.com
Emergency phone number	Chemtrec: 800-424-9300 Chemtrec Int'l: 703-527-3887

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Warning
Hazard statement	May be corrosive to metals. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Precautionary statement	
Prevention	Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Response	IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. 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 advice/attention. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a poison center/doctor if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Take off contaminated clothing and wash before reuse.
Storage	Keep container tightly closed. Protect from sunlight. Store in a well ventilated place. Store away from incompatible materials. Store in accordance with local/regional/national regulations.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

4.01% of the mixture consists of component(s) of unknown acute oral toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
TRIETHANOL AMINE		102-71-6	7 - 13
HEXAHYDRO-1,3,5-TRIS(2-HYDROXYETHYL)-S-TRIAZINE		4719-04-4	1 - 5
MONOETHANOLAMINE		141-43-5	1 - 5
N-BUTYLETHANOLAMINE		111-75-1	1 - 5
nonanoic acid		112-05-0	1 - 5
Dodecanedioic acid		693-23-2	0.5 - 1.5
Other components below reportable levels		N/A	60 - 100

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

4. First-aid measures

Inhalation

If symptoms are experienced, remove source of contamination or move victim to fresh air. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation occurs: Get medical advice/attention. 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. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Defatting of the skin.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO₂). Foam. Water fog. Dry chemicals. Dry chemical powder. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Not applicable, non-combustible.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Wear suitable protective equipment.

Fire fighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

Specific methods

In the event of fire and/or explosion do not breathe fumes.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not ingest. Do not get this material on clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Avoid prolonged and repeated contact. Use only in well-ventilated areas. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Wash contaminated clothing before reuse. Practice good housekeeping. Handle and open container with care. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

To maintain product quality, do not store in heat or direct sunlight. Use care in handling/storage. Keep container tightly closed. Keep away from food, drink and animal feedingstuffs. Store away from incompatible materials (see Section 10 of the SDS). Store in a well-ventilated place. Room temperature - normal conditions. Do not allow material to freeze. Product may separate if frozen. Thaw completely at room temperature and stir thoroughly prior to use.

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m ³
		3 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
TRIETHANOL AMINE (CAS 102-71-6)	TWA	5 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m ³
		6 ppm
		8 mg/m ³
	TWA	3 ppm

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 safety glasses with side shields (or goggles). Do not get in eyes.

Skin protection**Hand protection**

Nitrile gloves are recommended.

Other

Wear suitable protective clothing and gloves.

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. Do not get in eyes, on skin, on clothing. 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	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Chemical.
Odor threshold	Not available.
pH	10 estimated
Melting point/freezing point	< 28 °F (< -2.22 °C) estimated
Initial boiling point and boiling range	> 212 °F (> 100 °C) estimated
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
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	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Miscible (water)	100 %
pH in aqueous solution	9 @ 5%
Specific gravity	1.05 estimated
VOC (Weight %)	10 % (ASTM D2369)

10. Stability and reactivity

Reactivity	May be corrosive to metals. 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	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines. Strong oxidizing agents. Avoid contact with acids and oxidizing substances.
Hazardous decomposition products	smoke. Oxides of nitrogen. Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Eye contact	Causes serious eye irritation.
Ingestion	May be harmful if swallowed. Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Defatting of the skin.

Information on toxicological effects

Acute toxicity May cause respiratory irritation.

Components	Species	Test Results
MONOETHANOLAMINE (CAS 141-43-5)		
Acute		
Dermal		
LD50	Rabbit	1025 mg/kg
Oral		
LD50	Guinea pig	620 mg/kg
	Mouse	700 mg/kg
	Rat	10.2 g/kg
nonanoic acid (CAS 112-05-0)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Oral		
LD50	Mouse	15000 mg/kg
TRIETHANOL AMINE (CAS 102-71-6)		
Acute		
Dermal		
LD50	Rabbit	> 20000 mg/kg
Oral		
LD50	Guinea pig	5300 mg/kg
	Rat	8 g/kg

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

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Defatting, drying and cracking of skin.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization Not available.

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.

IARC Monographs. Overall Evaluation of Carcinogenicity

TRIETHANOL AMINE (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not available.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be harmful if swallowed and enters airways.
Chronic effects	Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

Components	Species	Test Results
MONOETHANOLAMINE (CAS 141-43-5)		
Aquatic		
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss) 114 - 196 mg/l, 96 hours
nonanoic acid (CAS 112-05-0)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 93.4 - 115 mg/l, 96 hours
TRIETHANOL AMINE (CAS 102-71-6)		
Aquatic		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 565.2 - 658.3 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 10610 - 13010 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

Partition coefficient n-octanol / water (log Kow)	
MONOETHANOLAMINE	-1.31
nonanoic acid	3.42
TRIETHANOL AMINE	-1

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	Dispose of contents/container in accordance with local/regional/national/international 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	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN3267
UN proper shipping name	Corrosive liquid, basic, organic, n.o.s. (MONOETHANOLAMINE, TRIETHANOLAMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Supplemental Information: This concentrate product is corrosive to Aluminum only. Per 49 CFR 173.154 (d) (1) - Except for hazardous substance, a hazardous waste, or a marine pollutant, a material classed as a Class 8, Packing Group III, material solely because of its corrosive effect on Aluminum is not subject to any other requirements of this subchapter when transported by motor vehicle or rail car in a packaging constructed of materials that will not react dangerously with or be degraded by the corrosive material.	

IATA

UN number	UN3267
UN proper shipping name	Corrosive liquid, basic, organic, n.o.s. (MONOETHANOLAMINE, TRIETHANOLAMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
ERG Code	8L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3267
UN proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETHANOLAMINE, TRIETHANOLAMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT



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)

HEXAHYDRO-1,3,5-TRIS(2-HYDROXYETHYL)-S-TRIAZI 1.0 % One-Time Export Notification only.
NE (CAS 4719-04-4)

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

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 - No
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes**SARA 313 (TRI reporting)**

Not regulated.

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. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

US. Massachusetts RTK - Substance List

MONOETHANOLAMINE (CAS 141-43-5)

TRIETHANOL AMINE (CAS 102-71-6)

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

MONOETHANOLAMINE (CAS 141-43-5)

TRIETHANOL AMINE (CAS 102-71-6)

US. Pennsylvania Worker and Community Right-to-Know Law

MONOETHANOLAMINE (CAS 141-43-5)

TRIETHANOL AMINE (CAS 102-71-6)

US. Rhode Island RTK

Not regulated.

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)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*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 04-28-2014
Revision date 11-12-2015
Version # 04

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a 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. Supplier cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.