### **Superior Manufacturing**

Chemwatch Hazard Alert Code: 2

Chemwatch: 5179-97 Version No: 2.1.1.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 05/15/2020 Print Date: 05/15/2020 Initial Date: Not AvallableUSA.EN

# SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### **Product Identifier**

Product name	Synthetic Cutting Coolant
Synonyms	238
Other means of identification	Not Available

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

Relevant identified uses Use according to manufacturer's directions.

#### Details of the manufacturer/importer

Registered company name	Superior Manufacturing
Address	4520 Glenmeade Lane, Auburn Hills, MI 48326
Telephone	866-523-5677
Website	ordersuperior.com
Email	info@ordersuperior.com

### Emergency telephone number

Association / Organisation	Not Available					
Emergency telephone numbers	+800 535 5053					
Other emergency telephone numbers	Not Available					

### **SECTION 2 HAZARDS IDENTIFICATION**

Classification of the substance or mixture

## Considered a Hazardous Substance by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Not classified as Dangerous Goods for transport purposes.



**GHS Classification** Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1\* Label elements GHS label elements SIGNAL WORD WARNING Hazard statement(s) H315 Causes skin irritation H319 Causes serious eye irritation May cause an allergic skin reaction\* H317 Precautionary statement(s) Prevention P280

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

Continued...

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.		
P272	Contaminated work clothing should not be allowed out of the workplace.		

### Precautionary statement(s) Response

P362	Take off contaminated clothing.					
P363	sh contaminated clothing before reuse.					
P302+P352	N SKIN: Wash with plenty of water and soap					
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.					
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.					
P337+P313	If eye irritation persists: Get medical advice/attention.					

### Precautionary statement(s) Storage

### Precautionary statement(s) Disposal

P501

Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

### Mixtures

CAS No	%[weight]	Name			
102-71-6	1-<5	triethanolamine			
67952-33-4	1-<10	boric acid, compounded with diethanolamine			
Not Available	1-<5	fatty acid ester			
7732-18-5	>60	water			

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## **SECTION 4 FIRST AID MEASURES**

### Description of first aid measures

Eye Contact	<ul> <li>If this product comes in contact with the eyes:</li> <li>Wash out immediately with fresh running water.</li> <li>Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	If skin contact occurs: <ul> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> <li>If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> </ul>

### Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. Treat symptomatically.

#### **SECTION 5 FIREFIGHTING MEASURES**

### 

## Special hazards arising from the substrate or mixture

Fire Incompatibility	<ul> <li>Avoid reaction with oxidising agents</li> <li>Avoid strong acids, bases.</li> </ul>					
Advice for firefighters						
<ul> <li>Fire Fighting</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> <li>DO NOT approach containers suspected to be hot.</li> <li>Cool fire exposed containers with water spray from a protected location.</li> </ul>						
Fire/Explosion Hazard	<ul> <li>The material is not readily combustible under normal conditions.</li> <li>However, it will break down under fire conditions and the organic component may burn.</li> <li>Not considered to be a significant fire risk.</li> <li>Heat may cause expansion or decomposition with violent rupture of containers.</li> <li>Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).</li> <li>May emit acrid smoke.</li> </ul>					

# SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	Moderate hazard.  Clear area of personnel and move upwind.  Alert Fire Brigade and tell them location and nature of hazard.  Wear breathing apparatus plus protective gloves.  Prevent, by any means available, spillage from entering drains or water course.  Stop leak if safe to do so.
	Personal Protective Equipment advice is contained in Section 8 of the MSDS.

# SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

Safe handling	<ul> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li>DO NOT enter confined spaces until atmosphere has been checked.</li> <li>DO NOT allow material to contact humans, exposed food or food utensils.</li> </ul>
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry area protected from environmental extremes.</li> <li>Store away from incompatible materials and foodstuff containers.</li> <li>Protect containers against physical damage and check regularly for leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this MSDS.</li> </ul>

# Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>			
Storage incompatibility	None known			

#### PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

# SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

# **Control parameters**

# OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US ACGIH Threshold Limit Values (TLV)	triethanolamine	Triethanolamine	5 mg/m3	Not Available	Not Available	TLV® Basis: Eye & skin irr; BEIA

# EMERGENCY LIMITS

Ingredient Material name	TEEL-1	TEEL-2	TEEL-3	
--------------------------	--------	--------	--------	--

triethanolamine	Triethanolamine; (Trihydroxytriethylamine)	15 mg/m3	51 mg/m3	1100 mg/m3
Ingredient	Original IDLH	Revised IDLH		
triethanolamine	Not Available	Not Available		
boric acid, compounded with diethanolamine	Not Available	Not Available		
fatty acid ester	Not Available	Not Available		
water	Not Available	Not Available		

#### **Exposure controls**

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Personal protection	
Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>NOTE: <ul> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> </li> <li>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical 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.</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> <li>Eye wash unit.</li> </ul>
Thermal hazards	Not Available

#### Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

### "Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computergenerated selection:

Synthetic Cutting Coolant FOR-043

Material CPI BUTYL С NATURAL RUBBER С NATURAL+NEOPRENE С NEOPRENE С NEOPRENE/NATURAL С С NITRILE PVA С PVC С С VITON

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final

selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

#### **Respiratory protection**

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

**Required Minimum** Half-Face Full-Face Powered Air Protection Factor Respirator Respirator Respirator AK-PAPR-AUS / up to 10 x ES AK-AUS P2 Class 1 P2 AK-AUS / Class up to 50 x ES -1 P2 up to 100 x ES AK-2 P2 AK-PAPR-2 P2 ^

#### ^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

# SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Appearance	Slightly amber liquid with no odor; mixes with water		
Physical state	Liquid	Relative density (Water = 1)	1.02
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Applicable	Viscosity (cSt)	1
Initial boiling point and boiling range (°C)	100	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	1	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

## SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

# Information on toxicological effects

•			
Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product		
Ingestion	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) Accidental ingestion of the material may be damaging to the health of the individual.		
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.		
Eye	This material can cause eye irritation and damage in some persons.		
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.		
Synthetic Cutting	ΤΟΧΙΟΙΤΥ	IRRITATION	
Coolant FOR-043	Not Available	Not Available	
	тохісіту	IRRITATION	
	dermal (rat) LD50: >18080 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.1 ml -	
triethanolamine	Oral (rat) LD50: 5559.6 mg/kg(female) * <sup>[2]</sup>	Eye (rabbit): 10 mg - mild	
		Eye (rabbit): 5.62 mg - SEVERE	

	1		
		inor iritis,	
		o comeal injury *	
		o irritation *	
	Si	kin (human): 15 mg/3d (int)-mild	
	S	kin (rabbit): 4 h occluded	
	Si	kin (rabbit): 560 mg/24 hr- mild	
	w	ith significant discharge;	
boric acid, compounded	TOXICITY	RRITATION	
with diethanolamine	Not Available N	lot Available	
	TOXICITY	RRITATION	
water	Oral (rat) LD50: >90000 mg/kg <sup>[2]</sup>	lot Available	
Legend:	<ol> <li>Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Va extracted from RTECS - Register of Toxic Effect of chemical Substances</li> </ol>	lue obtained from manufacturer's msds. Unless otherwise specified data	
TRIETHANOLAMINE	involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody- mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. Lachrymation, diarrhoea, convulsions, urinary tract changes, changes in bladder weight, changes in testicular weight, changes in thymus weight, changes in liver weight, dermatitis after systemic exposure, kidney, ureter, bladder tumours recorded. Equivocal tumourigen by RTECS criteria. Dermal rabbit value quoted above is for occluded patch in male or female animals * Union Carbide		
BORIC ACID, COMPOUNDED WITH DIETHANOLAMINE & WATER	No significant acute toxicological data identified in literature search.		
Acute Toxicity		inogenicity 🚫	
Skin Irritation/Corrosion	✓ Repi	roductivity	
Serious Eye Damage/Irritation	✓ STOT - Single	Exposure	
Respiratory or Skin sensitisation	V STOT - Repeated	Exposure	
Mutagenicity	S Aspirati	ion Hazard	
	Le	egend:	

# CMR STATUS

Not Applicable

### **SECTION 12 ECOLOGICAL INFORMATION**

#### Toxicity

#### DO NOT discharge into sewer or waterways.

# Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
triethanolamine	LOW	LOW
water	LOW	LOW

## **Bioaccumulative potential**

Ingredient	Bioaccumulation
triethanolamine	LOW (BCF = 4)
water	LOW (LogKOW = -1.38)

# Mobility in soil

Ingredient	Mobility
triethanolamine	LOW (KOC = 10)
water	LOW (KOC = 14.3)

# SECTION 13 DISPOSAL CONSIDERATIONS

Product / Packaging disposal	<ul> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible.</li> <li>Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facil can be identified.</li> </ul>
---------------------------------	--

# SECTION 14 TRANSPORT INFORMATION

NO

#### Labels Required

Marine Pollutant

#### Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

#### Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	triethanolamine	Z

#### **SECTION 15 REGULATORY INFORMATION**

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

triethanolamine(102-71-6) is found on the following regulatory lists	"US - California Permissible Exposure Limits for Chemical Contaminants", "International Agency for Research on Cancer (IARC) - Agents Classified by th IARC Monographs", "US ACGIH Threshold Limit Values (TLV)", "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"
boric acid, compounded with diethanolamine(67952-33-4) is found on the following regulatory lists	"US EPA Carcinogens Listing", "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"
water(7732-18-5) is found on the following regulatory lists	"US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"
National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (boric acid, compounded with diethanolamine; water)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	N (boric acid, compounded with diethanolamine)
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

### **SECTION 16 OTHER INFORMATION**

#### Other information

### Ingredients with multiple cas numbers

Name	CAS No
boric acid, compounded with diethanolamine	67952-33-4, 68954-07-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at: www.chemwatch.net

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.