




SAFETY DATA SHEET

412 Tap Shield

Section 1. Identification

GHS product identifier	: 412 Tap Shield
Other means of Identification	: Not available
Product type	: Liquid.
Identified uses	: Concentrated metalworking lubricant.
Supplier's details	: Schaeffer Mfg. Company 102 Barton Street Saint Louis, Missouri 63104 Tel: 314-865-4100 Fax: 314-865-4107 Toll Free: 1-800-325-9962 Email: safety@schaefferoil.com Web: http://www.schaefferoil.com
Emergency telephone number (with hours of operation)	: +1 314 865-4105 (24-hour response number)

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) – Category 2 ASPIRATION HAZARD – Category 1 AQUATIC HAZARD (ACUTE) - Category 3 AQUATIC HAZARD (LONG-TERM) – Category 3
GHS label elements Hazard pictograms	: 

Section 2. Hazards identification

- Signal word** : Danger
- Hazard statements** : Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May be fatal if swallowed and enters airways.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
- Response** : Get medical attention if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical 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 attention.
- Storage** : Store in a cool, dry, well-ventilated area away from incompatible materials.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of Identification** : Not available.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy naphthenic	10 - 30	64742-52-5
Tall oil	5 - 10	8002-26-4
Focus Ester 603	1 - 5	-
Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	1 - 5	68155-20-4
2,2',2''-Nitrilotriethanol	1 - 5	102-71-6
2,2'-(Cyclohexylimino)bisethanol	1 - 5	4500-29-2
Sulfonic acids, petroleum, sodium salts	1 - 5	68608-26-4
Oleic acid, monoester with glycerol	1 - 5	25496-72-4
Boric acid	1 - 5	10043-35-3
Alcohols, C10-16, ethoxylated propoxylated	1 - 5	69227-22-1
2-Aminoethanol	1 - 5	141-43-5
Hexahydro-1,3,5-tris(3-methoxypropyl)-1,3,5-triazine	1 - 5	3960-05-2
Glycols, polyethylene, mono((1,1,3,3-tetramethylbutyl)phenyl) ether	0.1 - 1	9036-19-5
3-Iodo-2-propynyl butylcarbamate	0.1 - 1	55406-53-6

Any concentration shown as a range is to protect confidentially or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition product** : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides metal oxide/oxides
- Special protective actions for fire-fighters** : No special measures are required.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
- Methods and materials for containment and cleaning up**
- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limit

<u>Ingredient name</u>	<u>Exposure limits</u>
2-Aminoethanol	<p>ACGIH TLV (United States, 3/2015). STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 7.5 mg/m³ 8 hours. TWA: 3 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2013). STEL: 15 mg/m³ 15 minutes. STEL: 6 ppm 15 minutes. TWA: 8 mg/m³ 10 hours. TWA: 3 ppm 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 6 mg/m³ 8 hours. TWA: 3 ppm 8 hours.</p>
2,2',2''-Nitrilotriethanol	<p>ACGIH TLV (United States, 3/2015). TWA: 5 mg/m³ 8 hours.</p>
Boric acid	<p>ACGIH TLV (United States, 3/2015). STEL: 6 mg/m³ 15 minutes. Form: Inhalable fraction TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction</p>
Distillates (petroleum), hydrotreated heavy naphthenic	<p>ACGIH TLV (United States, 3/2015). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction</p> <p>NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist</p> <p>OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours. Form: Mist</p>

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin Protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

- Appearance**
- Physical state** : Liquid.
- Color** : Green.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : 8.86
- Melting point** : Not available.
- Boiling Point** : 148.89 to 204.44°C (300 to 400°F)
- Flash point** : Not available.
- Evaporation rate** : 1 (Water=1)
- Flammability (solid, gas)** : Not available.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.03 +/- 0.02
Solubility	: Complete in water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Volatility	: Not available.
VOC content	: 18.4 % (w/w)

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity for this product or its ingredients.
Chemical stability	: This material is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incomplete materials	: Reactive or incompatible with the following materials: strong acids and oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
Tall oil	LD50 Oral	Rat	66 g/kg	-
2-Aminoethanol	LD50 Oral	Rat	1720 mg/kg	-
2,2'-(Cyclohexylimino)bisethanol	LD50 Oral	Rat	2600 mg/kg	-
Sulfonic acids, petroleum, sodium salts	LD50 Oral	Rat	>5 g/kg	-
2,2',2''-Nitrilotriethanol	LD50 Oral	Rat	7.39 g/kg	-
3-Iodo-2-propynyl butylcarbamate	LD50 Oral	Rat	1470 mg/kg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Aminoethanol	Eyes - Severe irritant	Rabbit	-	250 µg	-
	Skin - Moderate irritant	Rabbit	-	505 mg	-
2,2',2''-Nitrilotriethanol	Eyes - Mild irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Human	-	72 hours 15 mg Intermittent	-
	Skin - Severe irritant	Mouse	-	50%	-
	Skin - Mild irritant	Rabbit	-	24 hours 560 mg	-
Boric acid	Skin - Mild irritant	Human	-	72 hours 15 mg Intermittent	-
Glycols, polyethylene, mono((1,1,3,3-tetramethylbutyl)phenyl) ether	Eyes - Mild irritant	Rabbit	-	15 mg	-
	Eyes - Severe irritant	Rabbit	-	1%	-
Oleic acid, monoester with glycol	Eyes - Mild irritant	Rabbit	-		-
	Skin - Mild irritant	Rabbit	-	100 mg	-
Distillates (petroleum), hydrotreated heavy naphthenic	Skin - Severe irritant	Rabbit	-	500 mg	-
				500 mg	-

Sensitization

There is no data available.

Carcinogenicity

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
2,2',2''-Nitrilotriethanol	-	3	-	-	-	-
Boric acid	-	-	-	A4	-	-
Distillates (petroleum), hydrotreated heavy naphthenic	-	-	-	A4	-	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
2-Aminoethanol	Category 3	Not applicable.	Respiratory tract irritation
Hexahydro-1,3,5-tris(3-methoxypropyl)-1,3,5-triazine	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2,2'-(Cyclohexylimino)bisethanol	Category 2	Oral	Not determined
3-Iodo-2-propynyl butylcarbamate	Category 1	Not determined	larynx

Aspiration hazard

Product/ingredient name	Result
Distillates (petroleum), hydrotreated heavy naphthenic	ASPIRATION HAZARD – Category 1

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : No known significant effects or critical hazards.

Skin contact : Adverse symptoms may include the following:
 irritation
 redness

Ingestion : Adverse symptoms may include the following:
 nausea or vomiting

Delayed and immediate effects and also chronic effect from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	8201.4 mg/kg
Dermal	54479.6 mg/kg
Inhalation (vapors)	544.8 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-Aminoethanol	Acute EC50 8.42 mg/L Fresh water Acute LC50 >100000 µg/L Marine water Acute LC50 170000 µg/L Fresh water	Algae – Desmodesmus subspicatus Crustaceans - Crangon crangon – Adult Fish - Carassius auratus	72hours 48 hours 96 hours
2,2',2''-Nitrilotriethanol	Acute EC50 609.98 mg/L Fresh water Acute LC50 1180000 µg/L Fresh water Chronic NOEC 16000 µg/L Fresh water	Crustaceans – Ceriodaphnia dubia - Neonate Fish - Pimephales promelas Daphnia - Daphnia magna	48 hours 96 hours 21 days
Boric acid	Acute LC50 45.5 mg/L Fresh water Acute LC50 133000 µg/L Fresh water Acute LC50 75 mg/L Marine water Chronic NOEC 6000 µg/L Fresh water Chronic NOEC 2100 µg/L Fresh water	Crustaceans – Ceriodaphnia dubia Daphnia - Daphnia magna – Neonate Fish – Pagrus major Daphnia - Daphnia magna Fish - Oncorhynchus mykiss	48 hours 48 hours 96 hours 21 days 87 days
Glycols, polyethylene, mono((1,1,3,3-tetramethylbutyl)phenyl) ether	Acute EC50 210 µg/L Fresh water Acute LC50 10800 µg/L Marine water Acute LC50 8600-9800 µg/L Fresh water Acute LC50 7200 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata Crustaceans - Pandalus montagui– Adult Daphnia - Daphnia magna – Neonate Fish - Oncorhynchus mykiss	96 hours 48 hours 48 hours 96 hours
3-Iodo-2-propynyl butylcarbamate	Acute EC50 0.16 ppm Fresh water Acute LC50 500 ppb Fresh water Acute LC50 67 ppb Fresh water Chronic NOEC 8.4 ppb	Daphnia - Daphnia magna Crustaceans - Hyalella azteca Fish - Oncorhynchus mykiss Fish - Pimephales promelas	48 hours 48 hours 96 hours 35 days

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Tall oil	3.2 to 6.8	-	High
2,2',2''-Nitrilotriethanol	-1	<3.9	Low
Boric acid	-1.09	-	Low
2-Aminoethanol	-1.31	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : There is no data available.

Other adverse effects : No known significant effects or critical hazards

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transportation information

	DOT	TDG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated. -
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

AERG : Not applicable.

Special precautions for user : **Transport within user's premises**: always transport closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 4(a) final test rules**: Oils, lard, Me esters; Acetaldehyde
TSCA 8(a) PAIR: 1,1'-Oxydipropan-2-ol; Glycols, polyethylene, mono((1,1,3, 3-tetramethylbutyl)phenyl) ether; Acetaldehyde; Oils, lard, Me esters
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
TSCA 12(b) one-time export: Oils, lard, Me esters
Commerce control list precursor: 2,2',2''-Nitrilotriethanol
United States inventory (TSCA 8b): Not determined.
Clean Water Act (CWA) 311: Propylene oxide; Potassium hydroxide; Acetaldehyde

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed.

Clean Air Act Section 602 Class I Substances : Not listed.

Clean Air Act Section 602 Class II Substances : Not listed.

DEA List I Chemicals (Precursor Chemicals) : Not listed.

DEA List II Chemicals (Essential Chemicals) : Not listed.

Section 15. Regulatory information

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Ethylene oxide	0 - 0.01	Yes.	-	-	-	-
Propylene oxide	0 - 0.01	Yes.	10000	1444.3	100	14.4

SARA 304 RQ : 427350.4 lbs / 194017.1 kg [49761.1 gal / 188366.1 L].

SARA 311/312

Classification

: Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Distillates (petroleum), hydrotreated heavy naphthenic	10-30	No.	No.	No.	Yes.	No.
Focus Ester 603	1 – 5	No.	No.	No.	Yes.	No.
Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	1 – 5	No.	No.	No.	Yes.	No.
2,2',2''-Nitrilotriethanol	1 – 5	No.	No.	No.	Yes.	No.
2,2'-(Cyclohexylimino)bisethanol	1 – 5	No.	No.	No.	Yes.	Yes.
Sulfonic acids, petroleum, sodium salts	1 – 5	No.	No.	No.	Yes.	No.
Oleic acid, monoester with glycerol	1 – 5	No.	No.	No.	Yes.	No.
Boric acid	1 – 5	No.	No.	No.	No.	Yes.
Alcohols, C10-16, ethoxylated propoxylated	1 – 5	No.	No.	No.	Yes.	No.
2-Aminoethanol	1 – 5	Yes.	No.	No.	Yes.	No.
Hexahydro-1,3,5-tris(3-methoxypropyl)-1,3,5-triazine	1 – 5	No.	No.	No.	Yes.	No.
Glycols, polyethylene, mono((1,1,3,3-tetramethylbutyl)phenyl) ether	0.1 – 1	No.	No.	No.	Yes.	No.
3-Iodo-2-propynyl butylcarbamate	0.1 – 1	No.	No.	No.	Yes.	Yes.

SARA 313

No products were found.

State regulations

Massachusetts

: The following components are listed: 2,2',2''-Nitrilotriethanol; 2- Aminoethanol

New York

: None of the components are listed.

New Jersey

: The following components are listed: Distillates (petroleum), hydrotreated heavy naphthenic; 2,2',2''-Nitrilotriethanol; Diethanolamine; 2-Aminoethanol; Boric acid

Pennsylvania

: The following components are listed: 2,2',2''-Nitrilotriethanol; 2-Aminoethanol.

California Prop. 65

WARNING: This product contains less than 0.1% chemical known to the State of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Diethanolamine	Yes.	No	No	No.
1,4-Dioxane	Yes	No	Yes	No
Ethylene oxide	Yes	Yes	Yes	Yes
Propylene oxide	Yes	No	No	No
Acetaldehyde	Yes	No	90 µg/day (inhalation)	No

Section 16. Other information

US Tariff Heading Number : 2710.01.9307
Schedule B Code : 2710.01.9307

History

Date of issue mm/dd/yyyy : 12/15/2015
Version : 1
Prepared by : KMK Regulatory Services Inc.

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

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KMK Regulatory Services

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