

SDS No: 4009-1

Version: 1.1 (REG\_29 CFR 1910.1200 /REG\_GHS Rev.5<sup>th</sup> e.2013)

Date of last Revision: 08/19/2014

<b>1.1</b>	<b>Product identifier used on the label:</b> Red APC
<b>1.2</b>	<b>Other means of identification:</b> Not Applicable
<b>1.3</b>	<b>Recommended use of the chemical and restrictions on use:</b> An automotive engine, heavy equipment and machinery cleaner/degreaser. This material should not be used for any other purpose than that recommended without expert advice.
<b>1.4</b>	<b>Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:</b> J.B.Chemical Co., Inc. 14803 S. Spring Street Gardena, CA 90248, USA 310-532-3021 800-522-2468
<b>1.5</b>	<b>Emergency phone numbers:</b> J.B.Chemical Co., Inc.: (310) 532-3021, (800) 522-2468 Monday - Friday, 7:00am - 3:00pm PST

Chemtrec: (800) 424-9300 - Outside the continental U.S.: (703) 527-3887 24 Hours

## 2.Hazard(s) identification

<b>2.1</b>	<b>Classification of the chemical in accordance with 29 CFR 1910.1200(d) and GHS Rev.5<sup>th</sup> e.2013:</b> This product is classified as hazardous.  Eye Damage Category 1 Skin Corrosion Category 1 Aquatic Acute Category 3
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2.2

**Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with 29 CFR 1910.1200(f) and GHS Rev.5<sup>th</sup> e.2013:**

**Signal word:** Danger

**Hazard statement(s):**

**Physical Hazards:** Not Applicable

**Health Hazards:** H314: Causes severe skin burns and eye damage.

**Environmental Hazard:** H402: Harmful to aquatic life.

**Symbol(s):**

**Precautionary statement(s):**

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**Prevention:**

P102: Keep out of reach of children.

P264: Wash hands thoroughly after handling.

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

P280: Wear protective gloves/eye protection.

P273: Avoid release to the environment.

**Response:**

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310: Immediately call a POISON CENTER or doctor/physician.

P363: Wash contaminated clothing before reuse.

**Storage:** P405: Store locked up.

**Disposal:** P501: Dispose of contents/container in accordance with CERCLA/CWA (Section 311)/SARA Title III Regulations.

<b>2.3</b>	<b>Describe any hazards not otherwise classified that have been identified during the classification process</b> It may cause respiratory tract irritation.
<b>2.4</b>	<b>Where an ingredient with unknown acute toxicity is used in a mixture at a concentration <math>\geq</math> 1% and the mixture is not classified based on testing of the mixture as a whole, a statement that X% of the mixture consists of ingredient(s) of unknown acute toxicity is required:</b> Not Applicable

<b>Chemical name</b>	<b>CAS No.</b>	<b>EC No.</b>	<b>Concentration (Wt%)</b>	<b>Classification 29 CFR 1910.1200(d)/GHS</b>
Ethylene glycol monobutyl ether	111-76-2	203-905-0	$\leq$ 8.00	Flam. Liq.4 H227 Acute Tox.4 H302 Acute Tox.4 H312 Skin Irrit.2 H315 Eye Irrit.2 H319 Acute Tox.4 H332 Asp Tox.1 H304
Sodium Metasilicate Pentahydrate	10213-79-3	Not listed	$\leq$ 2.00	Acute Tox.4 H302 Eye Dam.1 H318 Skin Corr.1B H314 STOT SE3 H335
Sodium Hydroxide	1310-73-2	215-185-5	$\leq$ 2.75	Acute Tox.3 H301 Acute Tox.4 H312 Eye Dam.1 H318 Skin Corr.1A H314 Aquatic Acute 3 H402
Ethoxylated Alcohols Mixture	66455-15-0 68551-12-2	Not listed/ 500-221-7	$\leq$ 4.00	Skin Irrit.2 H315 Eye Irrit.2 H319

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	68002-97-1			STOT SE3 H335 Asp Tox.1 H304 Aquatic Acute 2 H401
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#### 4. First-aid measures

4.1	<p><b>Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion.</b></p> <p><b>Inhalation:</b> If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, get medical attention.</p> <p><b>Skin contact:</b> Clean affected areas with mild soap and water. Remove contaminated clothing, including shoes, and launder before reuse or discard. If any irritation persists, seek medical attention.</p> <p><b>Eye contact:</b> Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If any irritation persists, get medical attention.</p> <p><b>Ingestion:</b> Do not induce vomiting or give anything by mouth. If victim is drowsy or unconscious, place on the left side with head down. If possible, do not leave victim unattended.</p>
4.2	<p><b>Most important symptoms/effects, acute and delayed:</b> Serious eye and skin burns/irritation.</p>
4.3	<p><b>Indication of immediate medical attention and special treatment needed, if necessary:</b> Persistent eye or skin irritation.</p>

## 5.Fire-fighting measures

5.1	<p><b>Suitable (and unsuitable) extinguishing media:</b> Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.</p>
5.2	<p><b>Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):</b> Not Applicable</p>
5.3	<p><b>Special protective equipment and precautions for fire-fighters:</b> Wear full protective clothing and self-contained breathing apparatus.</p>

## 6.Accidental release measures

<p style="text-align: center;"><b>6.1</b></p>	<p><b>Personal precautions, protective equipment, and emergency procedures:</b>          Avoid contact with spilled or released material. Immediately remove all contaminated clothing. Wear protective equipment to prevent skin and eye contact and breathing in vapors. Remove all possible sources of ignition in the surrounding area. Shut off leaks, if possible without personal risks. Use appropriate containment (of product and fire-fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapor or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.</p>
<p style="text-align: center;"><b>6.2</b></p>	<p><b>Methods and materials for containment and cleaning up:</b>          For small liquid spills (&lt; 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery</p>

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or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Centre at (800) 424-8802.

## 7. Handling and storage

<p style="text-align: center;"><b>7.1</b></p>	<p><b>Precautions for safe handling:</b>          Avoid breathing mists or vapors. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Handle an open container with care in a well-ventilated area. Ventilate work place in such a way that the Occupational Exposure Limit (OEL) is not exceeded. Do not empty into drains.</p>
<p style="text-align: center;"><b>7.2</b></p>	<p><b>Conditions for safe storage, including any incompatibilities:</b></p>

For small containers, keep out of reach of children. Keep tightly closed and store in a cool and well ventilated area. Store only in approved containers and protect from physical damage. Storage should meet OSHA standards. Empty drums should be completely drained, properly bunged, and promptly shipped to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulation. Do not overheat; product will start boiling if heated above 200°F.

## 8. Exposure controls/ personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Component(s):

Chemical name	Type	Exposure Limit values	Source
Sodium Metasilicate Pentahydrate CAS No:10213-79-3	TWA (dust,8 hr)	2 mg/m <sup>3</sup>	Manufacturer's recommendation
Ethylene glycol monobutyl ether CAS No: 111-76-2	TWA (vapor,8 hr)	20 ppm	US. ACGIH Threshold Limit Values (01 2010)
Sodium Hydroxide CAS No: 1310-73-2	TWA (vapor,8 hr)	2 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (01 2010)

**Appropriate engineering controls:** Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** Select and use eye/face protection to prevent contact based on the results of an

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exposure assessment. The following eye/face protection(s) are recommended: Safety Glasses with side shields

**Skin/hand protection:** Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Gloves made from the following material(s) are recommended: Nitrile rubber

**Respiratory protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use and maintenance must be in accordance with regulatory requirements. If applicable, types of respirators to be considered for this material include: half-face air-purifying filter respirator suitable for organic vapors and particulates (P95).

## 9. Physical and chemical properties

<b>Appearance (physical state, color, etc.):</b>	Liquid, red
<b>Odor:</b>	Fragrant odor

<b>Odor threshold:</b>	Not Determined
<b>pH:</b>	13.0
<b>Melting point/freezing point:</b>	Not Applicable
<b>Initial boiling point and boiling range:</b>	>200 °F
<b>Flash point:</b>	Not Applicable
<b>Evaporation rate:</b>	Not Determined
<b>Flammability (solid, gas):</b>	Not Applicable
<b>Upper/lower flammability or explosive limits:</b>	Not Applicable
<b>Vapor pressure:</b>	Not Determined
<b>Vapor density:</b>	Not Determined
<b>Relative density:</b>	1.02 at 77°F (Water=1)
<b>Solubility(ies):</b>	Soluble
<b>Partition coefficient: n-octanol/water:</b>	Not Determined
<b>Auto-ignition temperature:</b>	Not Determined
<b>Decomposition temperature:</b>	Not Determined
<b>Viscosity:</b>	Not Determined

## 10. Stability and reactivity

<b>10.1</b>	<b>Reactivity:</b> This material is considered to be non- reactive under normal use conditions.
<b>10.2</b>	<b>Chemical stability:</b> Stable.
<b>10.3</b>	<b>Possibility of hazardous reactions:</b> Hazardous polymerization will not occur.
<b>10.4</b>	<b>Conditions to avoid (e.g., static discharge, shock, or vibration):</b> Not Applicable
<b>10.5</b>	<b>Incompatible materials:</b> Strong oxidizing agents.
<b>10.6</b>	<b>Hazardous decomposition products:</b> Thermal decomposition is highly dependent on conditions. A complex

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mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

**Description of the various toxicological (health) effects and the available data used to identify those effects, including:**

**Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):**

**Inhalation:** It may cause respiratory tract irritation. Do not breathe dust/fume/gas/mist/vapors/spray.

**Ingestion:** May be harmful if ingested. Causes burns and gastrointestinal irritation with nausea, vomiting and diarrhea.

**Skin contact:** Causes severe skin burns.

**Eye contact:** Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics:** Not Determined

**Delayed and immediate effects and also chronic effects from short- and long-term exposure:** See section 11.1.

**Numerical measures of toxicity (such as acute toxicity estimates):** Not determined on the mixture.

### Acute toxicity

Name (Components)	Route	Species	Value
Sodium Metasilicate Pentahydrate CAS No:10213-79-3	Dermal	Rabbit	LD50>5000 mg/m3
“	Ingestion	Rat	LD50>1152 mg/kg
“	Inhalation (4 hours)	Rat	LD50>2060 ppm
Ethylene glycol monobutyl ether CAS No:111-76-2	Dermal	Rat	LD50 > 2000 mg/kg
“	Ingestion	Rat	LD50 > 1300 mg/kg
“	Inhalation-vapor (3 hours)	Rat	LC50 > 4.9 mg/l
Sodium Hydroxide CAS No:1310-73-2	Dermal	Rabbit	LD50 >1350 mg/m3
“	Ingestion	Rat	LD50 >300 mg/kg
“	Inhalation (4 hours)		No Data Available
Ethoxylated Alcohols Mixture	Dermal	Rabbit	LD50>5000 mg/m3
“	Ingestion	Rat	LD50>2000 mg/kg
“	Inhalation-aerosol (4 hours)	Rat	No Data Available

#### Skin Corrosion/Irritation

Name (Components)	Species	Value
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Sodium Metasilicate Pentahydrate CAS No:10213-79-3	Rabbit	Corrosive to skin.
Ethylene glycol monobutyl ether CAS No:111-76-2	Rabbit (24 hours)	Moderate irritation.
Sodium Hydroxide CAS No:1310-73-2	Human	Corrosive to skin.
Ethoxylated Alcohols Mixture		Moderate irritation

#### Serious Eye Damage/Irritation

Name (Components)	Species	Value
Sodium Metasilicate Pentahydrate CAS No:10213-79-3	Rabbit	Corrosive to eyes.
Ethylene glycol monobutyl ether CAS No:111-76-2	Rabbit (24 hours)	Moderate irritation.
Sodium Hydroxide CAS No:1310-73-2		Corrosive to eyes.
Ethoxylated Alcohols Mixture		Causes severe eye irritation. May cause severe corneal injury.

#### Respiratory or skin sensitization

Name (Components)	Species	Value
Sodium Metasilicate Pentahydrate CAS No:10213-79-3		Not a sensitizer
Ethylene glycol monobutyl ether CAS No:111-76-2	Guinea Pig	Not a skin sensitizer
Sodium Hydroxide CAS No:1310-73-2	Human	Not a sensitizer
Ethoxylated Alcohols Mixture	Human	No Data Available



### Germ Cell Mutagenicity

Name (Components)	Route	Value
Sodium Metasilicate Pentahydrate CAS No:10213-79-3	In Vivo	Negative
Sodium Metasilicate Pentahydrate CAS No:10213-79-3	In Vitro	Negative
Ethylene glycol monobutyl ether CAS No:111-76-2	In Vitro: Salmonella typhimurium assay (Ames test)	Negative +/- activation
Sodium Hydroxide CAS No:1310-73-2	In Vitro: Salmonella typhimurium assay (Ames test)	Negative
Ethoxylated Alcohols Mixture	In Vitro	No Data Available

### Carcinogenicity

Name (Components)	Route	Species	Value
Sodium Metasilicate Pentahydrate CAS No:10213-79-3			Not classified
Ethylene glycol monobutyl ether CAS			Not Classified.

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No:111-76-2			
Sodium Hydroxide CAS No:1310-73-2			Not Classified.
Ethoxylated Alcohols Mixture			Not Classified.

### Reproductive toxicity

Name (Components)	Route	Species	Value	Test Result	Exposure Duration
Sodium Metasilicate Pentahydrate CAS No:10213-79-3			No relevant data found.		
Ethylene glycol monobutyl ether CAS No:111-76-2			Not Classified		
Sodium Hydroxide CAS No:1310-73-2			No relevant data found.		
Ethoxylated Alcohols Mixture			No relevant data found.		

### Specific Target Organ Toxicity - single exposure

Name (components)	Route	Species	Target Organ	Value	Test Result	Exposure Duration

Sodium Metasilicate Pentahydrate CAS No:10213-79-3	Inhalation		Respiratory system	Causes irritation.		
Ethylene glycol monobutyl ether CAS No:111-76-2	Inhalation		Central Nervous System	May cause drowsiness or dizziness	NOAEL	
Sodium Hydroxide CAS No:1310-73-2				No relevant data found.		
Ethoxylated Alcohols Mixture				No relevant data found.		

**Specific Target Organ Toxicity - repeated exposure**

Name (components)	Route	Species	Target Organ	Value	Test Result	Exposure Duration
Sodium Metasilicate Pentahydrate CAS No:10213-79-3				No relevant data found.		
Ethylene glycol monobutyl ether CAS No:111-76-2	Dermal	Rat		150 mg/kg	NOAEL	
Sodium Hydroxide CAS No:1310-73-2				No relevant data found.		
Ethoxylated Alcohols Mixture				No relevant data found.		

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**Aspiration Hazard**

Name (Components)	Value
Sodium Metasilicate Pentahydrate CAS No:10213-79-3	Not Classified
Ethylene glycol monobutyl ether CAS No:111-76-2	Aspiration Hazard Toxicity Category 1
Sodium Hydroxide CAS No:1310-73-2	No relevant data found.
Ethoxylated Alcohols Mixture	Aspiration Hazard Toxicity Category 1

## 12. Ecological information

	<b>12.1</b>	<b>Ecotoxicity (aquatic and terrestrial, where available):</b> Not determined
	<b>12.2</b>	<b>Persistence and degradability:</b> Not determined
	<b>12.3</b>	<b>Bioaccumulative potential:</b> Not determined
	<b>12.4</b>	<b>Mobility in soil:</b> Not determined
	<b>12.5</b>	<b>Other adverse effects (such as hazardous to the ozone layer):</b> Not determined

## 13. Disposal considerations

<b>13.1</b>	<p><b>Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:</b> Dispose of contents/ container in accordance with the local/regional/national/international regulations. Do not contaminate any lakes, streams, ponds, or underground water supplies.</p> <p><b>Empty Container Warning</b> Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death.</p>
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## 14. Transport information

Because this product is produced and shipped in several different container sizes, domestically and internationally, please consult your transportation specialist for the proper shipping name and class.

	<b>14.1</b>	<b>UN number:</b> Not Regulated
	<b>14.2</b>	<b>UN proper shipping name:</b> Not Regulated
	<b>14.3</b>	<b>Transport hazard class(es):</b> Not Regulated
	<b>14.4</b>	<b>Packing group, if applicable:</b> Not Regulated
	<b>14.5</b>	<b>Environmental hazards (e.g., Marine pollutant (Yes/No)):</b> Not determined
	<b>14.6</b>	<b>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</b> Not determined

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14.7

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises:** Not determined

## 15.Regulatory information

15.1

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

**OSHA Hazard Communication Standard:** This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200 (see section 2).

**TSCA:** Components of this product are listed on the TSCA Inventory.

**SARA Title III, Section 302 (Extremely Hazardous Substances):** None

**SARA Title III, Section 313:** This product contains 2-Butoxyethanol (CAS No: 111-76-2  $\leq$  8.00%) which is subject to the reporting requirements of SARA Title III.

**SARA Title III, Section 311/312 Classifications:**

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

**CERCLA Hazardous Substances:** This material contains Sodium Hydroxide (CAS No: 1310-73-2  $\leq$  2.75% wt) which is subject to reporting (Reportable Quantity is 1000 lbs) under the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Contact local authorities to determine if other reporting requirements apply.

**Clean Air Act Section 112(r):** None

**CLEAN WATER ACT/OIL POLLUTION ACT:** None

**CA PROP 65:**

WARNING! This product contains a chemical known to the State of California to cause cancer: None  
WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm: None

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which

complete these regulations. Refer to all applicable national, international and local regulations or provisions.

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

### Full text of H-Statements referred to under sections 2 and 3:

H227: Combustible liquid.

H290: May be corrosive to metals.

H304: May be fatal if swallowed and enters airways. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation.

H316: Causes mild skin irritation. H318:

Causes serious eye damage. H319:

Causes serious eye irritation. H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness. Acute

Tox.3 or 4: Acute Toxicity Category 3 or 4

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Asp Tox.1 or 2: Aspiration Toxicity Category 1 or 2

Eye Dam./Irrit.1 or 2: Eye Damage/Irritation Category 1 or 2 Flam.

Liq.2 or 3 or 4: Flammable Liquid Category 2 or 3 or 4

Skin Corr./Irrit.1 or 2 or 3: Skin Corrosion/Irritation Category 1 or 2 or 3 STOT

SE3: Specific Target Organ Toxicity Single Exposure Category 3

### Sources of key data used to compile the Safety Data Sheet:

International Agency for Research on Cancer

International Air Transport Association: Dangerous Goods Regulations. International

Maritime Organization: International Maritime Dangerous Goods Code Components  
supplier data

Globally harmonized system of classification and labeling of chemicals (GHS Rev.5<sup>th</sup> e.2013)

European Chemicals Agency website

EU Registration, Evaluation and Restriction of Chemicals regulation (REACH): Classification and Labeling Inventory

US California Proposition 65

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

Department of Health & Human Services. National Toxicology Program

US Department of Transport DOT 49 CFR

US National Fire Protection Association (NFPA) 704

US National Institute for Occupational Safety & Health (NIOSH) (exposure limits)

US Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1200 (Hazard Communication Standard)

US OSHA 29 CFR 1910.1000 - Table Z1 (exposure limits)

US Superfund Amendments and Reauthorization Act (SARA) Title III Sections 302; 311/312 ; 313 US

Toxic Substances Control Act (TSCA)

**Key or legend to abbreviations and acronyms used in the safety data sheet:**

ACGIH - American Conference of Governmental Industrial Hygienists  
CAS No - Chemical Abstract System No.  
CERCLA- US Comprehensive Environmental Response, Compensation, and Liability Act COC -  
Cleveland Open Cup (flash and fire point)  
DOT -Department Of Transportation EPA -  
Environmental Protection Agency  
IARC - International Agency for Research on Cancer IATA -  
International Air Transport Association  
IMDG - International Maritime Dangerous Goods code mg/  
m<sup>3</sup> - milligrams per cubic meter  
mg/l - milligrams per liter  
NIOSH - National Institute for Occupational Safety and Health  
NFPA- US National Fire Protection Association  
NTP - National Toxicology Program  
OSHA - Occupational Safety and Health Administration  
OEL-Occupational Exposure Limits  
PEL - Permissible Exposure Limits ppb  
- Parts Per Billion  
ppm - Parts Per Million  
PMCC - Pensky-Martin Closed Cup (flash point)  
RCRA - EPA Resource Conservation and Recovery Act  
SARA - Superfund Amendments and Reauthorization Act Title I, II, III SDS -  
Safety Data Sheet  
STEL- Short Term Exposure Limit TCC -  
Tag Closed Cup (flash point)

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TLV - Threshold Limit Value

TWA - Time Weighted Average Exposure

< - Less than

> - More than

**Procedure used to derive the classification for mixtures according to Regulations 29 CFR 1900.1200 and GHS**

**Rev.5<sup>th</sup> e.2013:**

Calculation method: Classification of mixtures based on ingredients of the mixture.

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*The information contained in this document is based upon data believed to be reliable at the time of preparing this SDS and relates only to the matters specifically mentioned in this document.*

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