

# G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

## 1. PRODUCT IDENTIFIER

### 1.1 PRODUCT NAME: **Phosphoric Acid 75-85%(All Grades)**

**PRODUCT NUMBER(S):**

230900-85% Technical Grade,

230910-85% ACS Grade,

230930-85% Reagent Grade,

230940-85% USP/NF Grade,

230995-85% Semi Grade,

231100-75% Technical Grade

**TRADE NAMES/SYNONYMS:** Orthophosphoric Acid, White phosphoric acid,

**CAS-No:** 7664-38-2

### 1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

**RECOMMENDED USE:** Manufacture of substances, Laboratory Chemicals

**USES ADVISED AGAINST:** No information available

### 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

**Company:** G.J. CHEMICAL CO., INC.

**Address:** 40 VERONICA AVENUE  
SOMERSET, NJ 08873

**Telephone:** 1-973-589-1450

**Fax:** 1-973-589-3072

### 1.4 Emergency Telephone Number

**Emergency Phone:** 1-800-424-9300 (CHEMTREC)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**GHS Classification in accordance with 29CFR 1910 (OSHA HCS)**

**Corrosive to metals (Category 1), H290**

**Skin corrosion (Category 1B), H314**

**Serious eye damage (Category 1), H318**

## 2.2 GHS Label elements, including precautionary statements



Pictogram

**GHS05**

Signal word        **DANGER**

### Hazard statement(s)

**H290 May be corrosive to metals.**

**H314 Causes severe skin burns and eye damage.**

**H318 Causes serious eye damage.**

### Precautionary statement(s)

#### Prevention:

**P234 Keep only in original container.**

**P264 Wash skin thoroughly after handling.**

**P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.**

#### Response:

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

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

**P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for**

**breathing. Immediately call a POISON CENTER or doctor/ physician.**

**P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

**Immediately call a POISON CENTER or doctor/ physician.**

**P310 Immediately call a POISON CENTER/doctor.**

**P321 Specific treatment (see supplemental first aid instructions on this label).**

**P363 Wash contaminated clothing before reuse.**

**P390 Absorb spillage to prevent material damage.**

#### Storage:

**P405 Store locked up.**

**P406 Store in corrosive resistant stainless steel container with a resistant inner liner.**

#### Disposal:

**P501 Dispose of contents/ container to an approved waste disposal plant.**

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

### 3. INGREDIENTS

#### 3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Phosphoric Acid	7664-38-2 EC-No.231-633-2 Index-No.015-011-00-6 Reg.-No. 01-2119485924-24-XXXX	75-85	Corrosive to metals (Category 1), H290 Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318
Water	7732-18-5 EC-No.231-791-2	15-25	None

#### 3.2 MIXTURE: Not applicable

### 4. FIRST-AID MEASURES

#### 4.1 DESCRIPTION OF FIRST AID MEASURES:

##### IINHALATION: Phosphoric Acid

**\*\*FIRST AID-** Remove to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult give oxygen. Do not use mouth to mouth resuscitation. Keep warm and quiet. Induce artificial respiration with the aid of a pocket mask equipped with a one way valve or other proper respiratory medical device.

##### EYE CONTACT (Splash): Phosphoric Acid

**\*\*FIRST AID-** Immediately irrigate eyes with water for 15 minutes. Hold eyelids open for complete irrigation. Remove contact lenses, if worn, after initial flush. Do not allow victim to rub or keep eyes closed. Take to a physician.

##### SKIN CONTACT (Splash): Phosphoric Acid

**\*\*FIRST AID-** Immediately wash affected area with soap and water and rinse for 15 minutes. Remove contaminated clothing and shoes. Immediately get a physician.

##### INGESTION: Phosphoric Acid

**\*\*FIRST AID-** DO NOT INDUCE VOMITING. If the victim is conscious and alert give 2-4 a cupfuls of milk or water. Never give anything by mouth to an unconscious person. Immediately consult a physician or poison control center, treat symptomatically.

#### **4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED INGESTION:**

**Eye:** May cause redness, pain, blurred vision, eye burns and irreversible eye injury.

**Skin:** Contact with liquid is corrosive and causes redness, pain and severe burns and ulceration. The severity of the injury depends on the concentration of the solution and duration of exposure.

**Inhalation:** May be fatal if inhaled. Causes chemical burns to the respiratory tract. Because its vapor pressure is negligible, it exists in the air only as a mist or spray. Severe exposures can lead to a chemical pneumonitis.

**Ingestion:** Causes chemical burns to the respiratory tract. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. Severe exposures can lead to shock, circulatory collapse, and death.

**Chronic:** Prolonged or repeated skin exposure may cause dermatitis.

**Medical Conditions Aggravated by Exposure:** Any individuals with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.

#### **4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:**

Specific details on antidote: No recommendation given.

### **5. FIRE FIGHTING MEASURES**

Flash Point:	N.D.	LEL %: NA
Auto-ignition Temp:	NA	UEL %: NA

**5.1 SUITABLE EXTINGUISHING MEDIA:** Foam--> x CO2--> x Dry Chemical  
--> x Water-fog--> x Other-->

#### **5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR**

**MIXTURE:** Not flammable, but reacts with most metals and may evolve flammable hydrogen gas. Vapors may be heavier than air, and can spread along the ground and collect in low or confined areas. Strong dehydrating agent, which may cause ignition of finely divided materials on contact.

**CONDITIONS OF FLAMMABILITY:** Not flammable or combustible.

**HAZARDOUS COMBUSTION PRODUCTS:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including Oxides of phosphorus, hydrogen, and other unidentified organic compounds evolve when this material is heated.

**5.3 ADVICE FOR FIREFIGHTERS:** Shut off source. Wear self contained breathing apparatus in pressure demand or other positive pressure mode and full protective gear for confined spaces. Contact with water can cause violent liberation of heat and splattering of the material. Water run-off can cause environmental damage. Dike and collect water used to fight fire. Use water spray to keep fire exposed containers cool.

## **6. ACCIDENTAL RELEASE MEASURES**

### **6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:**

Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

### **6.2 ENVIRONMENTAL PRECAUTIONS:**

Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system

### **6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:**

Methods for cleanup and containment:

Approach spill from upwind. Avoid runoff into storm sewers and ditches, which lead to waterways. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. A vapor suppressing foam may be used to reduce vapors. Absorb spill using a non combustible absorbent such as, earth, sand or vermiculite. Keep all non-essential people away from exposure. Remove contaminated soil to remove contaminated trace residues.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

### **REPORTABLE QUANTITY (RQ): 5000 POUNDS**

The Superfund Amendments and Reauthorization Act (SARA) Section 304 requires that a release equal to or greater than the reportable quantity for this substance be immediately reported to the local emergency planning committee and the state emergency response commission (40 CFR 355.40). If the release of this substance is reportable under CERCLA Section 103, the national response center must be notified immediately at (800) 424-8882 or (202) 426-2675 in the metropolitan Washington, D. C. area (40 CFR 302.6).

### **6.4 REFERENCE TO OTHER SECTIONS:** See Sections 8 and 13.

## **7. HANDLING AND STORAGE**

### **7.1 PRECAUTIONS FOR SAFE HANDLING:**

Avoid work practices that may release volatile components in the atmosphere. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contaminating soil or releasing material into sewage and drainage systems. Do not take internally. Avoid free fall of liquid in excess of a few inches. Use only with adequate ventilation or respiratory protection. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not allow water to get into container because of violent reaction. Contents may develop pressure upon prolonged storage. Do not get in eyes, on

skin, or on clothing. Discard contaminated shoes. Keep away from strong bases and metals. Use caution when opening. Do not use with metal spatula or other metal items. When diluting, the acid should always be added slowly to water and in small amounts.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

**7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:**

Do not store in direct sunlight or near combustible materials. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials, separate from oxidizing materials. Keep containers closed when not in use. Keep container in a cool, well ventilated area.

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

**CONTAINER WARNINGS**> Empty containers release residue and can be dangerous. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

**7.3 SPECIFIC END USES:** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

**8. EXPOSURE CONTROL (PERSONAL PROTECTION)**

**8.1 CONTROL PARAMETERS:**

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Phosphoric Acid	7664-38-2 EC-No.231-633-2 Index-No.015-011-00-6 Reg.-No. 01-2119485924-24-XXXX	75-85	1.0mg/m3 TWA (ACGIH) 1.0mg/m3 TWA (OSHA) 3.0ppm STEL (ACGIH) 1.0ppm TWA (NIOSH) 1000mg/m3 (IDLH)
Water	7732-18-5 EC-No.231-791-2	15-25	None

Key: (PEL) = Permissible Exposure Limit OSHA  
 (TLV) = Threshold Limit Value OSHA & ACGIH  
 (STEL) = Short Term Exposure Limit ACGIH  
 (WEEL) = USA. Workplace Environmental Exposure Levels  
 (TWA) = Time Weighted Average  
 CAS = Chemical Abstracts Registry Number  
 IDLH = Immediate Danger to Life and Health  
 N.E. =None Established

**8.2 EXPOSURE CONTROLS**

**EXPOSURE GUIDELINES**> Consider the potential hazards of this material (Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

**ENGINEERING CONTROLS**> Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

**RESPIRATORY PROTECTION**> The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For vapor concentrations 1 to 10 times TLV or PEL an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times TLV or PEL, in confined areas, and/or where vapor concentrations are unknown use a NIOSH approved positive pressure full face-piece supplied air respirator.

**BODY CLOTHING**> Use a complete chemical resistant suit or other impervious clothing. Remove and wash contaminated clothing before reuse.

**SKIN PROTECTION**> Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

**HYGIENE**: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

**EYE/FACE PROTECTION**> Use safety eyewear with splash guards or face shield. Maintain shower and eyewash in the work area.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:**

Phosphoric Acid 7664-38-2

Appearance-----> Clear syrupy liquid

Color-----> Colorless  
Odor-----> Virtually no odor  
Odor Threshold-----> No data available  
pH-----> 1.2@5g/L  
Molecular weight-----> 98.00amu  
Melting/Freezing Point-----> 40°C (104°F)  
Boiling Range ( °F)-----> 158°C 316°F  
Specific Gravity-----> 1.685@25°C  
Vapor Pressure-----> <0.03mmHg@ 20°C  
Vapor Density (air=1)-----> 3.4  
Water Solubility-----> Soluble  
Partition Coefficient N-Octanol/water-> No data available  
Evaporation Rate (Butyl Acetate=1)----> Slower than ether  
Flash Point-----> No data available  
Upper Flammability Limit-----> No data available  
Lower Flammability Limit-----> No data available  
Auto-ignition Temperature-----> No data available  
Decomposition Temperature-----> No data available  
Viscosity-----> No data available  
Explosive Properties-----> No data available  
Oxidizing Properties-----> No data available

9.2 Other information-----> No data available

## 10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No data available.

10.2 CHEMICAL STABILITY: Unstable ( ) Stable (X)  
Sulfuric acid reacts violently or explosively with many organic and inorganic chemicals and with water.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available.

HAZARDOUS POLYMERIZATION--> May occur ( ) Will not occur (X)

10.4 CONDITIONS TO AVOID> Heat, and Open Flame and exposure to moist air or water.

10.5 INCOMPATIBLE MATERIALS--> Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Exothermic reactions with aldehydes, amines, amides, alcohols, glycols, azo-compounds, carbamates, esters, caustics, phenols, cresols, ketones, organophosphates, epoxides, organic peroxides, strong bases, Metals, strong oxidizing agents. Can react violently with with sodium tetrahydroborate. Mixtures with nitromethane are explosive.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS--> Oxides of phosphorus.



# 11. TOXICOLOGICAL INFORMATION

## 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

### ACUTE HEALTH EFFECTS:

Effects of overexposure:

**Eye>** May cause redness, pain, blurred vision, eye burns and irreversible eye injury.

**Skin>** Contact with liquid is corrosive and causes redness, pain and severe burns and ulceration. The severity of the injury depends on the concentration of the solution and duration of exposure.

**Inhalation>** May be fatal if inhaled. Causes chemical burns to the respiratory tract. Because its vapor pressure is negligible, it exists in the air only as a mist or spray. Severe exposures can lead to a chemical pneumonitis.

**Ingestion>** Causes chemical burns to the respiratory tract. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. severe exposures can lead to shock, circulatory collapse, and death.

**Chronic:** Prolonged or repeated skin exposure may cause dermatitis.

**Medical Conditions Aggravated by Exposure:** Any individuals with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.

### ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat)	Skin LD50(Rabbit)	Inhalation LC50
Phosphoric Acid	1530mg/kg	2740mg/kg	>850mg/m <sup>3</sup> /1hr

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**Skin corrosion/irritation: No data available**

**Serious eye damage/irritation: No data available**

**Respiratory or skin sensitization: No data available**

**MUTAGENIC EFFECTS: No data available**

**CARCINOGEN STATUS:**

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

**IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.**

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

**OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.**

**REPRODUCTIVE TOXICITY: No data available.**

**Specific target organ toxicity (STOT-SE) - single exposure (Globally Harmonized System): no data available**

**Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available**

**Teratogenicity: No information found.**

**Epidemiology: No information found.**

**Neurotoxicity: No information found.**

**ASPIRATION HAZARD: No data available**

**ADDITIONAL DATA: A burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.**

## **12. ECOLOGICAL INFORMATION**

### **DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS**

**May be dangerous if it enters water intakes.**

**Notify local health and pollution control officials.**

**Notify operators of nearby water intakes.**

#### **12.1 AQUATIC TOXICITY:**

**Toxicity to Fish:**

**LC-50 Gambusia affinis (mosquito fish) - 138mg/L 96 hr**

**12.2 PERSISTENCE AND DEGRADABILITY:** The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3 BIOACCUMULATIVE POTENTIAL:** No data available

**12.4 MOBILITY IN SOIL:** No data available

**12.5 RESULTS OF PBT AND vPvB :**

**PBT assessment results:** This substance is not classified as PBT or vPvB.

**12.6 OTHER ADVERSE EFFECTS:** No data available.

**ENVIRONMENTAL FATE:** The acidity of phosphoric acid may be reduced readily by natural water hardness minerals, but the phosphate may persist indefinitely. During transport through the soil, phosphoric acid will dissolve some of the soil material, in particular, carbonate-based materials. The acid will be neutralized to some degree with adsorption of the proton and phosphate ions also possible. However, significant amounts of acid will remain for transport down toward the groundwater table.

**13. DISPOSAL CONSIDERATIONS**

**13.1 WASTE TREATMENT METHODS:** Contact a licensed professional waste disposal service to dispose of this material. Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate or biologically treat under controlled conditions in a permitted facility.

**CONTAMINATED PACKAGING:** Dispose of as unused product.

**RCRA:** The unused product is a RCRA hazardous waste if discarded. The RCRA ID number is: D002.

**DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262**

**14. TRANSPORT INFORMATION**

**Land Transport (DOT)**

**14.1 USDOT ID Number-----> UN1805**

- 14.2 USDOT Shipping Name-----> Phosphoric Acid Solution
- 14.3 USDOT Hazard Classification-----> 8 (Corrosive Liquid)
  - USDOT Label Codes-----> 8
- 14.4 USDOT Package Code-----> III
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> Yes
  - Emergency Response Guide-----> 154
  - Reportable Quantity-----> 5000lbs.

**Sea Transport (IMDG)**

- 14.1 ID Number-----> UN1805
- 14.2 Proper shipping name-----> PHOSPHORIC ACID SOLUTION
- 14.3 Hazard Classification-----> 8 (Corrosive Liquid)
  - Label Codes-----> 8
- 14.4 Package Code-----> III
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> Yes
  - EMS-Number-----> F-A, S-B

**Air Transport (IATA)**

- 14.1 ID Number-----> UN1805
- 14.2 Proper shipping name-----> Phosphoric Acid Solution
- 14.3 Hazard Classification-----> 8 (Corrosive Liquid)
  - Label Codes-----> 8
- 14.4 Package Code-----> III
- 14.5 Environmental hazard-----> None
- 14.6 Special precautions for user-----> Yes

**15. REGULATORY INFORMATION**

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:**

**SARA TITLE III (Superfund Amendment and Reauthorization Act)**

**SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed**

**SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed**

**SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Chronic Health Hazard**

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

**SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed Reportable Quantity - 5,000 pounds.**

**SECTION 101(14) Reportable Quantity: 5,000 lbs**

**Massachusetts Right to Know Components**

**Phosphoric acid CAS-No. 7664-38-2**

**Pennsylvania Right to Know Components**

**Phosphoric acid CAS-No. 7664-38-2**

**Water CAS-No.7732-18-5**

**New Jersey Right to Know Components**

**Phosphoric acid CAS-No. 7664-38-2**

**Water CAS-No.7732-18-5**

**California Prop. 65 Components**

**This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.**

**TSCA (Toxic Substance Control Act)**

**Phosphoric acid CAS-No.7664-38-2 is listed on the TSCA Inventory.**

**International Inventories:**

<b><u>Country or Region</u></b>	<b><u>Inventory Name</u></b>	<b><u>On inventory yes/no</u></b>
<b><u>Australia</u></b>	Australian Inventory of Chemical Substances (AICS)	Yes
<b><u>Canada</u></b>	Domestic Substances List (DSL)	Yes
<b><u>Canada</u></b>	Non-Domestic Substances List (NDSL)	No
<b><u>China</u></b>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<b><u>Europe</u></b>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<b><u>Europe</u></b>	European List of Notified Chemical Substances (ELINCS)	No
<b><u>Japan</u></b>	Inventory of Existing and New Chemical Substances (ENCS)	Yes
<b><u>Japan</u></b>	Industrial Safety & Health Law Inventory (ISHL)	Yes
<b><u>Korea</u></b>	Existing Chemicals List (ECL)	Yes
<b><u>Mexico</u></b>	National Inventory of Chemical Substances (INSQ)	Yes
<b><u>New Zealand</u></b>	New Zealand Inventory	Yes
<b><u>Philippines</u></b>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<b><u>Switzerland</u></b>	Inventory of Notified New Substances (CHINV)	Yes
<b><u>Taiwan</u></b>	National Existing Chemical Inventory (NECI)	Yes
<b><u>United States &amp; Puerto Rico</u></b>	Toxic Substances Control Act Inventory	Yes

**15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.**

## **16. OTHER INFORMATION:**

### **Hazard Rating:**

- 4-Extreme**
- 3-High**
- 2-Moderate**
- 1-Slight**
- 0-Insignificant**

**NFPA RATINGS (SCALE 0-4): Health=3 Fire=0 Reactivity=0**  
**HMIS RATINGS (SCALE 0-4): Health=3 Fire=0 Reactivity=0 PPE=K**

**Text of hazard statement codes in Section 2 and 3:**

**H290 May be corrosive to metals.**

**H314 Causes severe skin burns and eye damage.**

**H318 Causes serious eye damage.**

**Date of preparation-----> September 12, 2007**

**Revision Number-----> 1.6**

**Revision Content-----> General update all sections**

**Revision Date-----> September 12, 2018**

**Prepared by-----> T.G. Fenstermaker, Jr.**

### **Acronyms:**

ACGIH	-	American Conference of Governmental Industrial Hygienists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American Nation Standards Institute
API	-	American Petroleum Institute
CERCLA	-	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)
SARA	-	Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA	-	Self-Contained Breathing Apparatus
STEL	-	Short-Term Exposure Limit (generally 15 minutes)
TLV	-	Threshold Limit Value
TSCA	-	Toxic Substances Control Act
TWA	-	Time Weighted Average (8hr.)
WHMIS	-	Canadian Workplace Hazardous Materials Information System

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