

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

## 1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **Diethyl Phthalate**

PRODUCT NUMBER(S)-----> 136000, 136040

TRADE NAMES AND SYNONYMS ---> 1,2 benzenedicarboxylic acid, diethyl ester

CAS-No: 84-66-2

Chemical Family: Phthalate Ester

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

Industrial Uses: Manufacture of thermoplastics Use as an intermediate, Use in cosmetics, fragrance products, detergents and pharmaceuticals, Plasticizer for cellulose acetate, Formulation of fragrance compounds.

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)

Acute aquatic toxicity (Category 3), H402

### 2.2 GHS Label elements, including precautionary statements

Pictogram           None

Signal Word:       None

Hazard statement(s)

H402 Harmful to aquatic life.

Precautionary statement(s)

Prevention:

P273 Avoid release to the environment.

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
Diethyl Phthalate	84-66-2 EC-No. 271-550-6 Reg.-No. 1-2119486682-27-XXXX	>99	Acute aquatic toxicity (Category 3), H402

3.2 MIXTURE: Not applicable

### 4. FIRST-AID MEASURES

#### 4.1 DESCRIPTION OF FIRST AID MEASURES

**INHALATION: DIETHYL PHTHALATE**

**\*\*FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

**SKIN CONTACT: DIETHYL PHTHALATE**

**\*\*FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.**

**EYE CONTACT: DIETHYL PHTHALATE**

**\*\*FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Rest eyes for 30 minutes, if redness, burning, blurred vision or swelling, persist take to a physician.**

#### **INGESTION: DIETHYL PHTHALATE**

**\*\*FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water. Consult a physician or poison control center, treat symptomatically.**

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

**Eye:** Mildly irritating;

**Skin:** Mildly irritating;

**Inhalation:** May irritate the respiratory tract. However if this product is heated, misted or sprayed, may cause respiratory tract irritation and pulmonary edema.

**Ingestion:** May cause nausea, vomiting and diarrhea. Effects may include excitation, euphoria, headache, dizziness, drowsiness and coma.

**Chronic:** Occupational exposure to this material has not been reported to cause any significant adverse human effects. On the basis of available information, exposure to Diethyl Phthalate is not expected to produce any significant adverse human health effects when recommended safety precautions are followed.

#### **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:** 156°C (312.8°F) CC

**LEL %:** .75% (V)

**AUTO-IGNITION TEMP:** 457°C (854.6°F)

**UEL %:** Decomposes

#### **5.1 EXTINGUISHING MEDIA:**

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

Unsuitable extinguishing media: Do not use waterjet.

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

Keep containers tightly closed. Isolate from all sources of ignition.

Above the Flash Point explosive vapor/air mixtures may be formed.

Closed containers may explode when exposed to extreme heat.

**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 carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

**5.3 ADVICE FOR FIREFIGHTERS:** Shut off source. Isolate fire and deny unnecessary entry. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Wear NIOSH/MSHA approved self-contained breathing apparatus (SCBA) with positive pressure for confined spaces and where there is exposure to vapors. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## **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:

Use explosion proof equipment. Shut off valves, contain spill, for small spills add non-flammable absorbent such as clay or silica in spill area. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.

Methods for disposal:

Remove contaminated soil to remove contaminated trace residues. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace residue. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away.

**REPORTABLE QUANTITY (RQ):** 1000lbs.

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 breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not take internally Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

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: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Recommended storage temperature: 15 - 25°C. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use.

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. 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: Plasticizer

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
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Diethyl Phthalate	84-66-2	>99	5mg/m <sup>3</sup> TWA (OSHA)
	EC# 271-550-6		5mg/m <sup>3</sup> TWA (ACGIH)
Reg.-No. 1-2119486682-27-XXXX			5mg/m <sup>3</sup> TWA (NIOSH)

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 2), 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 exposures 1 to 10 times the ACGIH TWA wear a NIOSH/MSHA approved face-mask with organic vapor cartridges. For exposures over 10 times ACGIH TWA and in confined areas use NIOSH/MSHA approved self-contained supplied air mask with a full face shield (SCBA).

**BODY CLOTHING:** Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

**SKIN PROTECTION:** Employee must wear appropriate protective gloves to prevent contact with this substance.

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. Emergency shower and eyewash should be located in an easily accessible location to the work area.

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

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

Diethyl Phthalate 84-66-2

<b>APPEARANCE:</b>	Clear liquid
<b>COLOR:</b>	Colorless
<b>ODOR:</b>	Slight aromatic odor
<b>ODOR THRESHOLD:</b>	No Data Available
<b>pH:</b>	No Data Available
<b>MOLECULAR WEIGHT:</b>	222.24 amu
<b>MELTING POINT:</b>	3 °C (37 °F)
<b>BOILING POINT:</b>	298 - 299 °C (568 - 570 °F)
<b>SPECIFIC GRAVITY:</b>	1.12@25°C
<b>DENSITY (25°C):</b>	1.12 g/ml @25°C
<b>VAPOR PRESSURE:</b>	1.0 mm Hg @ 150°C
<b>VAPOR DENSITY:</b>	7.66
<b>WATER SOLUBILITY:</b>	0.12%@20°C
<b>PARTITION COEFFICIENT N-OCTANOL/WATER</b>	log Pow: 2.2 at 41 °C (106 °F)
<b>FLASH POINT:</b>	156.0 °C (312.8 °F) - closed cup
<b>EVAPORATION RATE (BUTYL ACETATE=1):</b>	Negligible
<b>UPPER FLAMMABILITY LIMIT:</b>	Decomposes
<b>LOWER FLAMMABILITY LIMIT:</b>	0.75% (V)
<b>AUTO IGNITION TEMPERATURE:</b>	457.0 °C (854.6 °F)
<b>DECOMPOSITION TEMPERATURE:</b>	No data available
<b>VISCOSITY:</b>	14.6cSt @20_C
<b>EXPLOSIVE PROPERTIES:</b>	No data available
<b>OXIDIZING PROPERTIES:</b>	No data available

**9.2 OTHER INFORMATION:** No data available

## **10. STABILITY AND REACTIVITY INFORMATION**

**10.1 REACTIVITY:** Forms explosive mixtures with air on intense heating. A range from approximately 15 Kelvin below the flash point is to be rated as critical.

**10.2 CHEMICAL STABILITY:** Unstable ( ) Stable (X)

**10.3 POSSIBILITY OF HAZARDOUS REACTIONS:** Violent reactions possible with:  
Strong oxidizing agents and acids.

**HAZARDOUS POLYMERIZATION:** May occur ( ) Will not occur (X)

**10.4 CONDITIONS TO AVOID:** Strong heating.

**10.5 INCOMPATIBLE MATERIALS:** Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid, hydrogen peroxide. Various plastics and rubber. This product reacts violently with oxidizing agents. On contact with acids and strong bases it hydrolyzes to form ethyl alcohol and phthalic acid.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** Fumes, Smoke, Carbon Monoxide, Carbon Dioxide.

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:**

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

#### **ACUTE HEALTH EFFECTS:**

Effects of overexposure:

Eye> Mildly irritating;

Skin> Mildly irritating;

Inhalation> May irritate the respiratory tract. However if this product is heated, misted or sprayed, may cause respiratory tract irritation and pulmonary edema.

Ingestion> May cause nausea, vomiting and diarrhea. Effects may include excitation, euphoria, headache, dizziness, drowsiness and coma.

Chronic: Occupational exposure to this material has not been reported to cause any significant adverse human effects. On the basis of available information, exposure to Diethyl Phthalate is not expected to produce any significant adverse human health effects when recommended safety precautions are followed.

Medical Conditions Aggravated by Exposure> No skin allergy was observed in humans following repeated exposure in a controlled skin contact studies.

#### **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 (Rat)	Inhalation LC50 (Rat)
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Diethyl Phthalate	8600mg/kg	10000mg/kg	4640mg/kg/6hr
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**Skin corrosion/irritation:** Based on available data, the classification criteria are not met. Rabbit Result: No irritation (OECD Test Guideline 404)

**Serious eye damage/eye irritation:** Based on available data, the classification criteria are not met. Rabbit Result: Slight irritation (IUCLID)

**Respiratory or Skin sensitization:**

**Respiratory:** Based on available data, the classification criteria are not met  
**Skin:** Based on available data, the classification criteria are not met  
**Patch Test; Human; Result:** negative (IUCLID)  
**Sensitization test: Guinea Pig Result:** negative (IUCLID)

**MUTAGENIC EFFECTS:** Mouse lymphocyte Result: negative Ames test  
**S. typhimurium Result:** negative

**CARCINOGEN STATUS: :**

**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 identified as a carcinogen or potential carcinogen by OSHA.

**Tumorigenic:** Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors

**REPRODUCTIVE TOXICITY:** Based on available data, the classification criteria are not met.

**TERATOGENICITY:** Based on available data, the classification criteria are not met.

**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

**ASPIRATION HAZARD:** No Data Available

**11.2 ADDITIONAL DATA:** Non-phototoxic, after uptake of large quantities:  
 Vomiting, Diarrhea, gastric pain

**RTECS:** TI1050000

## 12. ECOLOGICAL INFORMATION

### ECOLOGY: Water

#### 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 ACUTE AQUATIC TOXICITY:

Toxicity to fish:

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 12 mg/l - 96 h - static test

LC50 - *Pimephales promelas* (Fathead Minnow) - 17 mg/l - 96 h - static test

Toxicity to daphnia and other aquatic invertebrates:

LC50 - *Daphnia magna* (Water flea) - 52 to 90 mg/l - 48 h - static test

Toxicity to algae:

EC50 - *Desmodesmus subspicatus* (green algae) - 45 mg/l - 72h

Method: OECD Test Guideline 201 static test

Toxicity to microorganisms:

EC50 - Bacteria - 112 mg/l - 30 min.

#### 12.2 PERSISTANCE AND DEGRADABILITY:

Aerobic - Exposure time 28 d; Result: 94.6 % - Readily biodegradable

Biological Oxygen Demand (BOD): No Data Available

#### 12.3 BIOACCUMULATIVE POTENTIAL:

The octanol/water partition coefficient is: log Pow 2.2 at 41°C (106°F)

Bio-concentration Factor (BCF): 117

Bio-accumulation is not expected.

#### 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: Discharge into the environment must be avoided. Harmful to aquatic life with long lasting effects.

### **13. DISPOSAL CONSIDERATIONS**

**13.1 WASTE TREATMENT METHODS:** 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.

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

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID number is: U088

**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-----> N/A
- 14.2 USDOT Shipping Name-----> Not DOT Regulated  
Not Dangerous Goods
- 14.3 USDOT Hazard Classification-----> N/A  
USDOT Label Codes-----> N/A
- 14.4 USDOT Package Code-----> N/A
- 14.5 Marine Pollutant-----> No
- 14.6 Special precautions for user-----> None  
Emergency Response Guide-----> N/A

#### **Sea Transport (IMDG)**

- 14.1 UN Number:-----> N/A
- 14.2 Proper Shipping Name-----> Not Dangerous Goods
- 14.3 Hazard Class:-----> N/A  
USDOT Label Codes-----> N/A
- 14.4 Packing Group:-----> N/A
- 14.5 Environmental hazard-----> No

#### **Air Transport (IATA)**

- 14.1 UN Number:-----> N/A  
 14.2 Proper Shipping Name:-----> Not Dangerous goods  
 14.3 Hazard Class:-----> N/A  
     USDOT Label Codes-----> N/A  
 14.4 Packing Group:-----> N/A  
 14.5 Environmental hazard-----> No

**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) - None

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

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed

Diethyl Phthalate CAS 84-66-2

Reportable Quantity – 1000lbs.

SECTION 101(14) Reportable Quantity: 1000lbs.

Massachusetts Right to Know Components

Diethyl phthalate CAS-No.84-66-2

Pennsylvania Right to Know Components

Diethyl phthalate CAS-No.84-66-2

New Jersey Right to Know Components

Diethyl phthalate CAS-No.84-66-2

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)**

Diethyl Phthalate CAS 84-66-2 is listed on the TSCA Inventory.

**International Inventories:**

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

**15.2 CHEMICAL SAFETY ASSESSMENT: A Chemical Safety Assessment has been conducted.**

## **16. OTHER INFORMATION:**

**HMIS** (Hazardous Materials Identification System)

**Hazard Rating:**

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

**NFPA RATINGS (SCALE 0-4): Health=1 Fire=1 Reactivity=0**  
**HMIS RATINGS (SCALE 0-4) Health=1 Fire=1 Reactivity=0 PPE=B**

**Text of hazard statement codes in Section 2 and 3  
H402 Harmful to aquatic life.**

**Date of preparation-----> February 24, 2005**

**Revision Number-----> 1.9**

**Revision Content-----> Updates section 1, 2, 3, 5, 6, 8, 10, 11, and 12**

**Revision Date-----> January 16, 2019**

**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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