

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

## 1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME -----> **Trichloroethylene**

PRODUCT NUMBER(S)-----> 288300, 288310, 288390

TRADE NAMES AND SYNONYMS---> Trichloroethene, Ethylene Trichloride

CAS-No: 79-01-6

CHEMICAL FAMILY: Chlorinated Hydrocarbon

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

RECOMMENDED USE: Industrial: Use in adhesives, Use as an intermediate, Use in surface cleaning, Use as heat transfer fluid, Use in textile scouring, Use as a process chemical, Distribution and repackaging, Chemical for synthesis, Laboratory chemical

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)

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 1B), H350

Specific target organ toxicity - single exposure (Category 3), Central Nervous System, H336

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 3), H412

## 2.2 GHS Label elements, including precautionary statements



Pictogram

GHS08

GHS07

Signal word: **DANGER**

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves.

P281 Use personal protective equipment as required.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

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

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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
1, 1, 2 Trichloroethylene EC-No.201-167-4 Index-No.602-027-00-9 Reg.-No. 01-2119490731-36-XXXX	79-01-6	99.5	Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Germ cell mutagenicity (Category 2), H341 Carcinogenicity (Category 1B), H350 STOT-SE (Category 3), Central Nervous System, H336 Acute aquatic toxicity (Category 3), H402 Chronic aquatic toxicity (Category 3), H412
1, 2 Butylene Oxide (Stabilizer) EC-No.203-438-2 Index-No.603-102-00-9 Reg.-No. 01-2119449161-46-XXXX	106-88-7	0.5	Flammable liquids (Category 2), H225 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 4), H312 Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Carcinogenicity (Category 2), H351 STOT-SE (Category 3), Respiratory System, H335 Acute aquatic toxicity (Category 3), H402 Chronic aquatic toxicity (Category 3), H412

3.2 MIXTURE: Not applicable.

### 4. FIRST-AID MEASURES

#### 4.1 DESCRIPTION OF FIRST AID MEASURES:

**INHALATION: TRICHLOROETHYLENE**

**\*\*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: TRICHLOROETHYLENE**

**\*\*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 if irritation persists.

#### **EYE CONTACT: TRICHLOROETHYLENE**

**\*\*FIRST AID-** Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Get medical attention immediately.

#### **INGESTION: TRICHLOROETHYLENE**

**\*\*FIRST AID-** Do not induce vomiting. Do not give fluids. Prevent aspiration by keeping the victims head below the knees. Never give anything by mouth to an unconscious person. Immediately get to a physician or poison control center, treat symptomatically. Gastric lavage may be effective when performed by a physician within 4 hours of ingestion.

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

**Eye:** Irritant causing pain and inflammation;

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Inhalation:** Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma,

**Ingestion:** May cause irritation of the gastrointestinal tract with vomiting. If vomiting results in aspiration, chemical pneumonia may follow. Absorption through the gastrointestinal tract may produce symptoms of central nervous system depression. May result in damage to kidney and the liver.

**Chronic:** Can cause headache, mental confusion, depression, fatigue, loss of appetite, nausea, vomiting, cough, loss of sense of balance and visual disturbances and an intolerance to alcohol. Target organs: Eyes, Skin, Respiratory system, Central Nervous System, Liver, Kidney and Heart.

**Medical Conditions Aggravated by Exposure:** Skin contact may aggravate an existing dermatitis. Exposure may aggravate any kidney, liver or lung disorders. Alcohol consumed before or after exposure may increase adverse reactions.

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

**Notes to physician:** Caution Epinephrine or other stimulant may cause ventricular arrhythmia due to potentiation of endogenous epinephrine. Ethyl Alcohol markedly augments the health effects of trichloroethylene.

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

Flash Point: None °F

LEL %:8 (V)

Auto-ignition Temperature: 410°C (770°F)

UEL %:10.5 (V)

**5.1 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:** At high temperatures this product decomposes to give off hydrogen chloride gas plus other toxic and irritating vapors such as phosgene, chlorine. Vapor may form flammable mixture in atmosphere that contains a high percentage of oxygen. This product is nonflammable and non-explosive under normal conditions. If storage containers are exposed to excessive heat, over pressurization of the containers can result. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**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, hydrogen chloride, chlorine and phosgene evolve when this material undergoes combustion.

**5.3 ADVICE FOR FIREFIGHTERS:** Shut off source. Water fog may be used to cool closed containers to prevent pressure build. Wear NIOSH/MSHA approved pressure demand self-contained breathing apparatus (SCBA) for buildings and confined spaces where this product is stored. Structural firefighters clothing provides limited protection to the combustion products of this material.

### **6. ACCIDENTAL RELEASE MEASURES**

**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** Eliminate ignition sources in the vicinity of the spill or released vapor. 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:**

Shut off valves, contain spill, keep out of water sources and sewers. For small spills add absorbent (sand, diatomaceous earth) in spill area and then placed in closed containers, labeled and stored outside to await disposal. Large spills should be removed with a vacuum truck. 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. Clean up personnel should have NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA).

**Methods for disposal:**

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

**REPORTABLE QUANTITY (RQ):** Trichloroethylene - 100lbs.

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 prolonged or repeated 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. High Vapor Pressure presents a hazard when opening packages. 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. Keep containers closed when not in use. Light sensitive. Handle and store under inert gas. Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

**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:** 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 Range Limits	CAS No.	% by WT.	Exposure
1, 1, 2 Trichloroethylene	79-01-6	99.5	10ppm TWA (ACGIH)
EC-No.201-167-4			25ppm STEL (ACGIH)
Index-No.602-027-00-9			100ppm TWA (OSHA Z-2)
Reg.-No. 01-2119490731-36-XXXX			200ppm CEIL (OSHA Z-2)
			300ppm Peak (OSHA Z-2)
			1000ppm (IDLH)
1, 2 Butylene Oxide	106-88-7	0.5	2ppm TWA (WEEL)
(Stabilizer)	EC-No.203-438-2		
Index-No.603-102-00-9			
Reg.-No. 01-2119449161-46-XXXX			

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 vapor concentrations 1 to 10 times ACGIH TWA use an air purifying NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA, in confined areas, and/or where vapor concentrations are unknown use a NIOSH/MSHA approved positive pressure full face-piece supplied air respirator (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, wash and dry contaminated clothing before reuse.

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

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 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 chemical safety goggles plus full face shield. Emergency shower and eyewash should be in close proximity.

**MONITORING EXPOSURE:** Biological - Analysis of blood for trichloroacetic acid and trichloroethanol has been correlated with exposure; Urinary concentration of these metabolites may also correlate with routine constant exposure but not as a quantitative index of exposure.

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

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

Trichloroethylene 79-01-6

APPEARANCE:

Clear mobile liquid

COLOR:

Colorless



ODOR:	Sweet odor
ODOR THRESHOLD:	No data available
pH:	No data available
MOLECULAR WEIGHT:	131.39 amu
MELTING POINT:	-84.8°C (-120.6°F)
BOILING POINT:	86.7°C (188.1°F)
SPECIFIC GRAVITY:	1.463@25°C (77°F)
DENSITY (25°C):	1.463@25°C (77°F)
VAPOR PRESSURE:	61 mm Hg @ 20°C (68.0°F)
VAPOR DENSITY:	4.54
WATER SOLUBILITY:	0.11%
PARTITION COEFFICIENT N-OCTANOL/WATER	log Pow: 2.29-5
FLASH POINT:	None
EVAPORATION RATE (BUTYL ACETATE=1):	0,3
UPPER FLAMMABILITY LIMIT:	10.5% (V)
LOWER FLAMMABILITY LIMIT:	8% (V)
AUTO IGNITION TEMPERATURE:	410.0 °C (770.0 °F)
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)

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available

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

10.4 CONDITIONS TO AVOID: Heat, Sparks, Pilot Lights, Static Electricity, and other high temperature sources which induce thermal decomposition to irritating and corrosive HCL from solvent vapor. String UV light can cause significant phosgene to be generated.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid, hydrogen peroxide, dinitrogen tetroxide, alkali metals, aluminum, zinc or their alloys and magnesium.

**10.6 HAZARDOUS DECOMPOSITION PRODUCTS:** At high temperatures, this product decomposes to give off hydrogen chloride gas and small quantities of other toxic and irritating vapors such as phosgene.

## **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> Irritant causing pain and inflammation;

Skin> May be harmful if absorbed through skin. Causes skin irritation.

Inhalation> Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma,

Ingestion> May cause irritation of the gastrointestinal tract with vomiting. If vomiting results in aspiration, chemical pneumonia may follow. Absorption through the gastrointestinal tract may produce symptoms of central nervous system depression. May result in damage to kidney and the liver.

Chronic: Can cause headache, mental confusion, depression, fatigue, loss of appetite, nausea, vomiting, cough, loss of sense of balance and visual disturbances and an intolerance to alcohol. Target organs: Eyes, Skin, Respiratory system, Central Nervous System, Liver, Kidney and Heart.

Medical Conditions Aggravated by Exposure> Skin contact may aggravate an existing dermatitis. Exposure may aggravate any kidney, liver or lung disorders. Alcohol consumed before or after exposure may increase adverse reactions.

#### **ACUTE TOXICITY:**

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

<b>Ingredient</b>	<b> Oral LD50 (Rat)</b>	<b> Skin LD50 (Rabbit)</b>	<b> Inhalation LC50</b>	<b> </b>
Trichloroethylene	4920-7193mg/kg	>20000mg/kg	8450ppm/4hr	

1, 2 Butylene Oxide	500mg/kg	1741mg/kg	N.D.
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**SKIN CORROSION/IRRITATION:** Skin - Rabbit Result: Severe skin irritation - 24 h

**SERIOUS EYE DAMAGE/EYE IRRITATION:** Eyes - Rabbit Result: Eye irritation – 24 h

**RESPIRATORY OR SKIN SENSITIZATION:** No data available

**MUTAGENIC EFFECTS:** Laboratory experiments have shown mutagenic effects. In vitro tests showed mutagenic effects

**CARCINOGEN STATUS:** This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 1 - Group 1: carcinogenic to humans (Trichloroethylene)

NTP: (RAHC) - Reasonably anticipated to be a human carcinogen (Trichloroethylene)

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.

NTP- A study has shown that in the laboratory mouse using large doses there was an increase in the rate of spontaneous malignant liver tumors. NTP has listed Trichloroethylene as a Group 2 carcinogen (substance reasonably anticipated to be a carcinogen).

ACGIH - Lists trichloroethylene as A5 -not suspected as a human carcinogen.

**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.

**ASPIRATION HAZARD:** No information available.

**ADDITIONAL DATA:** Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Exposure to and/or consumption of alcohol may increase toxic effects., Gastrointestinal disturbance, Kidney injury may occur., narcosis

## **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:

LC50 - Pimephales promelas (fathead minnow) - 41 mg/l - 96.0 h

LOEC - other fish - 11 mg/l - 10.0 d

NOEC - Oryzias latipes - 40 mg/l - 10.0 d

Toxicity to daphnia and other aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - 18.00 mg/l - 48 h

Toxicity to algae:

IC50 - Pseudokirchneriella subcapitata (green algae) - 175.00 mg/l - 96 h

**12.2 PERSISTENCE AND DEGRADABILITY:** No data available

**12.3 BIOACCUMULATIVE POTENTIAL:** Does not bioaccumulate.

Bio-concentration Factor (BCF): 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:** 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: U228

If the waste is a spent solvent, the appropriate spent solvent code should be used.

**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-----> UN1710**
- 14.2 USDOT Shipping Name-----> Trichloroethylene**
- 14.3 USDOT Hazard Classification-----> 6.1 (Poisonous Materials)**
  - USDOT Label Codes-----> 6.1**
- 14.4 USDOT Package Code-----> III**
- 14.5 Marine Pollutant-----> No**
- 14.6 Special precautions for user-----> No**
  - Emergency Response Guide-----> 160**
  - Reportable quantity-----> 100lbs.**

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

- 14.1 ID Number-----> UN1710**
- 14.2 Proper shipping name-----> TRICHLOROETHYLENE**
- 14.3 Hazard Classification-----> 6.1 (Poisonous Materials)**
  - Label Codes-----> 6.1**
- 14.4 Package Code-----> III**
- 14.5 Marine Pollutant-----> No**
- 14.6 Special precautions for user-----> No**
  - EMS-Number-----> F-A, S-A**

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

- 14.1 ID Number-----> UN1710**
- 14.2 Proper shipping name-----> Trichloroethylene**
- 14.3 Hazard Classification-----> 6.1 (Poisonous Materials)**
  - Label Codes-----> 6.1**
- 14.4 Package Code-----> III**
- 14.5 Environmental hazard-----> None**
- 14.6 Special precautions for user-----> 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) - Listed**

**Trichloroethylene CAS 79-01-6 and 1, 2 Epoxybutane CAS 106-88-7**

**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**

**Trichloroethylene CAS 79-01-6 and 1, 2 Epoxybutane CAS 106-88-7**

**Reportable Quantity – 100lbs.**

**SECTION 101(14) Reportable Quantity: 100lbs.**

**Massachusetts Right to Know Components**

**Trichloroethylene CAS-No.79-01-6**

**1, 2-Epoxybutane CAS-No.106-88-7**

**Pennsylvania Right to Know Components**

**Trichloroethylene CAS-No.79-01-6**

**1, 2-Epoxybutane CAS-No.106-88-7**

**New Jersey Right to Know Components**

**Trichloroethylene CAS-No.79-01-6**

**1, 2-Epoxybutane CAS-No.106-88-7**

**California Prop. 65 Components**

**WARNING! This product contains a chemical known to the State of California to cause cancer. Trichloroethylene CAS-No.79-01-6**

**TSCA (Toxic Substance Control Act)**

**Trichloroethylene CAS-No.79-01-6, and 1, 2-Epoxybutane CAS-No.106-88-7 are 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

<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 carried out for this substance.**

## **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=2 Fire=1 Reactivity=0**  
**HMIS RATINGS (SCALE 0-4): Health=2 Fire=1 Reactivity=0 PPE=H**

**Hazard statement(s) from Section 2 and 3:**

**H315 Causes skin irritation.**

**H319 Causes serious eye irritation.**

**H336 May cause drowsiness or dizziness**

**H341 Suspected of causing genetic defects.**

**H350 May cause cancer.**

**H402 Harmful to aquatic life.**

**H412 Harmful to aquatic life with long lasting effects.**

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

**Revision Number-----> 1.5**

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

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

### **Acronyms:**

ACGIH - American Conference of Governmental Industrial Hygienists  
 AIHA - American Industrial Hygiene Association  
 ANSI - American National 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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