



# HI-VALLEY CHEMICAL

## LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Trichloroethylene

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Trichloroethylene  
**Synonyms:** Trichloroethene; 1,1,2-Trichloroethylene; 1,1-Dichloro-2-chloroethylene;  
**SDS Number:** R-020  
**Product Code:** 518391-PT, 518391-QT, 518391-1, 518391-5, 518391-660  
**Revision Date:** 10/20/2015  
**Version:** 1.0  
**Supplier Details:** High Valley Products, Inc.  
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### 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

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

- Health, Carcinogenicity, 1 B
- Environmental, Hazards to the aquatic environment - Chronic, 3
- Health, Skin corrosion/irritation, 2
- Health, Germ cell mutagenicity, 2
- Health, Specific target organ toxicity - Single exposure, 2
- Health, Serious Eye Damage/Eye Irritation, 2 A
- Health, Acute toxicity, 5 Oral
- Environmental, Hazards to the aquatic environment - Acute, 3

#### GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



#### GHS Hazard Statements:

- H350 - May cause cancer
- H412 - Harmful to aquatic life with long lasting effects
- H315 - Causes skin irritation
- H341 - Suspected of causing genetic defects
- H371 - May cause damage to organs
- H319 - Causes serious eye irritation
- H303 - May be harmful if swallowed
- H402 - Harmful to aquatic life

#### GHS Precautionary Statements:

- P201 - Obtain special instructions before use.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P273 - Avoid release to the environment.

P281 - Use personal protective equipment as required.

P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P308+313 - IF exposed or concerned: Get medical advice/attention.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients:

Cas#	%	Chemical Name
79-01-6	100%	Trichloroethylene

### 4 FIRST AID MEASURES

**Inhalation:** If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin Contact:** Wash with soap and water. Consult a physician.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.  
Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5 FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

### 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures:

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

#### Environmental precautions:

Do not let product enter drains.

#### Methods and materials for containment and cleaning up:

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

**Handling Precautions:** Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist.

**Storage Requirements:** Keep container tightly closed in a dry well ventilated place. Light sensitive.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Personal Protective Equipment:** Trichloroethylene (79-01-6) [100%]

Personal protective equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Immersion protection Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: > 480 min Material tested: Vitoject (Aldrich Z677698, Size M)

Splash protection: Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: > 30 min Material tested: Vitoject (Aldrich Z677698, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Trichloroethylene (79-01-6) [100%]

### Components with workplace control parameters

TWA	50 ppm 270 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
Skin notation		
STEL	200 ppm 1,080 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
Skin notation		
TWA	100 ppm Z37.19- 1967	USA. Occupational Exposure Limits (OSHA) - Table Z2
CEIL	200 ppm Z37.19- 1967	USA. Occupational Exposure Limits (OSHA) - Table Z2
Peak	300 ppm Z37.19- 1967	USA. Occupational Exposure Limits (OSHA) - Table Z2
TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
Central Nervous System impairment		cognitive decrement Renal toxicity Suspected human carcinogen
STEL	25 ppm	USA. ACGIH Threshold Limit Values (TLV)
Central Nervous System impairment		cognitive decrement Renal toxicity Suspected human carcinogen
Potential Occupational Carcinogen		See Appendix C See Appendix A

<b>Appearance:</b>	Colorless.
<b>Physical State:</b>	Liquid
<b>Odor:</b>	Sweet
<b>Odor Threshold:</b>	No data available
<b>Solubility:</b>	No data available
<b>Spec Grav./Density:</b>	1.463
<b>Viscosity:</b>	No data available
<b>Boiling Point:</b>	86.7 °C (188.1 °F) -
<b>Freezing/Melting Pt.:</b>	Melting point/range: -84.8 °C (-120.6 °F)
<b>Flash Point:</b>	No data available
<b>Partition Coefficient:</b>	log Pow: 2.29log Pow: 5
<b>Vapor Pressure:</b>	81.3 hPa (61.0 mmHg) at 20.0 °C (68.0 °F)
<b>Vapor Density:</b>	No data available
<b>pH:</b>	No data available
<b>Evap. Rate:</b>	No data available
<b>Auto-Ignition Temp:</b>	410.0 °C (770.0 °F)
<b>Decomp Temp:</b>	No data available
<b>UFL/LFL:</b>	Upper explosion limit: 10.5 %(V)

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	No data available

Trichloroethylene (79-01-6) [100%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 4,920 mg/kg

Inhalation LC50 LC50 Inhalation - mouse - 4 h - 8450 ppm

Dermal LD50 LD50 Dermal - rabbit - > 20,000 mg/kg

Other information on acute toxicity no data available

Skin corrosion/irritation: Skin - rabbit - Severe skin irritation - 24 h

Serious eye damage/eye irritation: Eyes - rabbit - Eye irritation - 24 h

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: Laboratory experiments have shown mutagenic effects. In vitro tests showed mutagenic effects

Carcinogenicity:

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: 2A - Group 2A: Probably carcinogenic to humans (Trichloroethylene)

NTP: 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.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):

May cause damage to organs.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):

no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: 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

Synergistic effects: no data available

Additional Information:

RTECS: KX4550000

## 12 ECOLOGICAL INFORMATION

Trichloroethylene (79-01-6) [100%]

Information on ecological effects

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

and other aquatic invertebrates

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

Persistence and degradability: Bioaccumulative potential:

Does not bioaccumulate.

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13 DISPOSAL CONSIDERATIONS

Trichloroethylene (79-01-6) [100%]

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

UN1710, Trichloroethylene, 6.1, PGIII

Component (CAS#) [%] - CODES

RQ(100LBS), Trichloroethylene (79-01-6) [100%] CERCLA, CSWHS, EPCRAWPC, HAP, HWRCRA, MASS, NJHS, OSHAWAC, PA, PRIPOL, PROP65, SARA313, TOXICPOL, TOXICRCRA, TSCA, TXAIR, TXHWL

Regulatory CODE Descriptions

RQ = Reportable Quantity  
CERCLA = Superfund clean up substance  
CSWHS = Clean Water Act Hazardous substances  
EPCRAWPC = EPCRA Water Priority Chemicals  
HAP = Hazardous Air Pollutants  
HWRCRA = RCRA Hazardous Wastes  
MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
OSHAWAC = OSHA Workplace Air Contaminants  
PA = PA Right-To-Know List of Hazardous Substances  
PRIPOL = Clean Water Act Priority Pollutants  
PROP65 = CA Prop 65  
SARA313 = SARA 313 Title III Toxic Chemicals  
TOXICPOL = Clean Water Act Toxic Pollutants  
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)  
TSCA = Toxic Substances Control Act  
TXAIR = TX Air Contaminants with Health Effects Screening Level  
TXHWL = TX Hazardous Waste List

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