



# HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Toluene

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Toluene  
**SDS Number:** R-025  
**Product Code:** 518340-PT, 518340-QT, 518340-1, 518340-5, 518340-30, 518340-55  
**Revision Date:** 11/6/2015  
**Version:** 1  
**Supplier Details:** High Valley Products, Inc.  
1134 West 850 North  
Centerville, Utah 84014  
**Emergency:** PERS: 800-633-8253  
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### 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

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

Physical, Flammable Liquids, 2  
Health, Aspiration hazard, 1  
Health, Skin corrosion/irritation, 2  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Reproductive toxicity, 2  
Health, Specific target organ toxicity - Repeated exposure, 2  
Environmental, Hazards to the aquatic environment - Acute, 2

#### GHS Label elements, including precautionary statements

**GHS Signal Word:** DANGER

**GHS Hazard Pictograms:**



#### GHS Hazard Statements:

H225 - Highly flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H315 - Causes skin irritation  
H336 - May cause drowsiness or dizziness  
H361 - Suspected of damaging fertility or the unborn child  
H373 - May cause damage to organs through prolonged or repeated exposure  
H401 - Toxic to aquatic life

#### GHS Precautionary Statements:

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ventilating/light/equipment.

P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 - Wash \_ thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P308+313 - IF exposed or concerned: Get medical advice/attention.  
P321 - Specific treatment (see \_ on this label).  
P331 - Do NOT induce vomiting.  
P332+313 - If skin irritation occurs: Get medical advice/attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P370+378 - In case of fire: Use \_ for extinction.  
P403+233 - Store in a well ventilated place. Keep container tightly closed.  
P403+235 - Store in a well ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to \_

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

Cas#	%	Chemical Name
108-88-3	100%	Toluene

### 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.

### 5 FIRE FIGHTING MEASURES

Extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Special hazards arising from the substance or mixture  
Carbon oxides  
Advice for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.  
Further information  
Use water spray to cool unopened containers.

### 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**  
Wear respiratory protection. Avoid breathing vapors, 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. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Storage Requirements:**

Keep container tightly closed. Keep away from heat, sparks, and flames.

<b>8</b>	<b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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**Personal Protective Equipment:**

Toluene (108-88-3) [100%]

Personal protective equipment

Eye/face 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 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.

Full contact: Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min Material tested: Vitoject (KCL 890 / Aldrich Z677698, Size M)

Splash contact: Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 480 min Material tested: Vitoject (KCL 890 / Aldrich Z677698, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, 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 and safety officer 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.

Body Protection: Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Toluene (108-88-3) [100%]

Components with workplace control parameters

TWA	100 ppm 375 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
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STEL	150 ppm 560 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
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TWA	200 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
Z37.12- 1967		

CEIL	300 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
Z37.12- 1967		

Peak	500 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
Z37.12- 1967		

TWA 20 ppm USA. ACGIH Threshold Limit Values (TLV)

Visual impairment  
Female reproductive  
Pregnancy loss  
2010 Adoption  
Substances for which there is a Biological Exposure Index or Indices (see BEI section)  
Not classifiable as a human carcinogen

TWA 100 ppm USA. NIOSH Recommended Exposure Limits  
375 mg/m<sup>3</sup>

ST 150 ppm USA. NIOSH Recommended Exposure Limits  
560 mg/m<sup>3</sup>

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless liquid.
<b>Physical State:</b>	Liquid
<b>Odor:</b>	aromatic
<b>Odor Threshold:</b>	No data available
<b>Solubility:</b>	No data available
<b>Spec Grav./Density:</b>	0.865
<b>Viscosity:</b>	No data available
<b>Boiling Point:</b>	110 - 111 °C (230 - 232 °F)
<b>Freezing/Melting Pt.:</b>	Melting point/range: -93 °C (-135 °F)
<b>Flash Point:</b>	4.0 °C (39.2 °F) - closed cup
<b>Partition Coefficient:</b>	No data available
<b>Vapor Pressure:</b>	29.1 hPa (21.8 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>	535.0 °C (995.0 °F)
<b>Decomp Temp:</b>	No data available
<b>UFL/LFL:</b>	Upper explosion limit: 7 %(V) Lower explosion limit: 1.2 %(V)

## 10 STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to Avoid:</b>	Heat, flames and sparks.
<b>Materials to Avoid:</b>	Strong Oxidizing Agents.
<b>Hazardous Decomposition:</b>	No data available

## 11 TOXICOLOGICAL INFORMATION

Toluene (108-88-3) [100%]

Information on toxicological effects

Acute toxicity:  
LD50 Oral - rat - > 5,580 mg/kg  
LC50 Inhalation - rat - 4 h - 12,500 - 28,800 mg/m<sup>3</sup>  
LD50 Dermal - rabbit - 12,196 mg/kg  
no data available

Skin corrosion/irritation: Skin - rabbit Result: Skin irritation - 24 h

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: rat Liver DNA damage

Carcinogenicity:

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Toluene)

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.

Reproductive toxicity: Damage to fetus possible Suspected human reproductive toxicant

Reproductive toxicity - rat - Inhalation:

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Experiments have shown reproductive toxicity effects in male and female laboratory animals.

Developmental Toxicity - rat - Oral:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: XS5250000

Lung irritation, chest pain, pulmonary edema, Inhalation studies on toluene have demonstrated the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotum in animals.

Stomach - Irregularities - Based on Human Evidence

## 12

## ECOLOGICAL INFORMATION

Toluene (108-88-3) [100%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 7.63 mg/l - 96 h.

NOEC - *Pimephales promelas* (fathead minnow) - 5.44 mg/l - 7 d

Toxicity to daphnia and EC50 - *Daphnia magna* (Water flea) - 8.00 mg/l - 24 h.

other aquatic invertebrates

Immobilization EC50 - *Daphnia magna* (Water flea) - 6 mg/l - 48 h

Toxicity to algae EC50 - *Chlorella vulgaris* (Fresh water algae) - 245.00 mg/l - 24 h.

EC50 - *Pseudokirchneriella subcapitata* (green algae) - 10.00 mg/l - 24 h

Persistence and degradability: Biodegradability Result: - Readily biodegradable.

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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

**13****DISPOSAL CONSIDERATIONS**

Toluene (108-88-3) [100%]

Waste treatment methods

Product: Contact a licensed professional waste disposal service to dispose of this material.

**14****TRANSPORT INFORMATION**

UN1294, Toluene, 3, PGI

**15****REGULATORY INFORMATION**

Component (CAS#) [%] - CODES

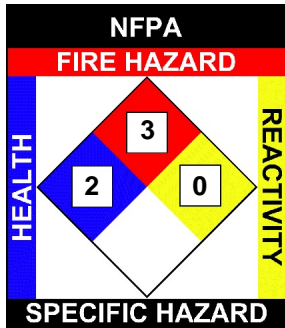
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RQ(1000LBS), Toluene (108-88-3) [100%] CERCLA, CSWHS, EPCRAWPC, HAP, MASS, NJHS, OSHAWAC, PA, PRIPOL, PROP65, SARA313, TOXICPOL, TOXICRCRA, TSCA, TXAIR, TXHWL

Regulatory CODE Descriptions

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RQ = Reportable Quantity  
CERCLA = Superfund clean up substance  
CSWHS = Clean Water Act Hazardous substances  
EPCRAWPC = EPCRA Water Priority Chemicals  
HAP = Hazardous Air Pollutants  
MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
OSHA = 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

NFPA: Health = 2, Fire = 3, Reactivity = 0, Specific Hazard = n/a

HMIS III: Health = 2, Fire = 3, Physical Hazard = 0



HMIS	
HEALTH	<input type="checkbox"/> 2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	<input type="checkbox"/>

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