



# HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

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# SAFETY DATA SHEET

Hi Valley Chemical

## Methyl Isobutyl Ketone

### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Methyl Isobutyl Ketone  
**SDS Number:** R-123  
**Revision Date:** 9/27/2017  
**CAS Number:** 108-10-1  
**Chemical Formula:** C6H12O  
**Supplier Details:** High Valley Products, Inc.  
1134 West 850 North  
Centerville, Utah 84014  
**Emergency:** PERS: 800-633-8253  
**Phone:** 801-295-9591  
**Email:** sales@hvchemical.com

### 2 HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

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

Physical, Flammable Liquids, 2  
Health, Carcinogenicity, 2  
Health, Serious Eye Damage/Eye Irritation, 2 A  
Health, Skin corrosion/irritation, 3  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Acute toxicity, 4 Inhalation  
Health, Acute toxicity, 5 Oral

#### GHS Label Elements, Including Precautionary Statements

**GHS Signal Word:** DANGER

**GHS Hazard Pictograms:**



#### GHS Hazard Statements:

H225 - Highly flammable liquid and vapour  
H351 - Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)  
H319 - Causes serious eye irritation  
H316 - Causes mild skin irritation  
H336 - May cause drowsiness or dizziness  
H335 - May cause respiratory irritation  
H332 - Harmful if inhaled  
H303 - May be harmful if swallowed

#### 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.

P233 - Keep container tightly closed.  
 P240 - Ground and bond container and receiving equipment.  
 P241 - Use explosion-proof [electrical/ventilating/lighting/...] equipment.  
 P242 - Use non-sparking tools.  
 P243 - Take action to prevent static discharges.  
 P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 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.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P281 - Use personal protective equipment as required.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 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.  
 P312 - Call a POISON CENTER/doctor/...if you feel unwell.  
 P337 + P313 - If eye irritation persists: Get medical advice/attention.  
 P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
 P403 + P235 - Store in a well-ventilated place. Keep cool.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container with local regulations.

### 3 COMPOSITION/INFORMATION OF INGREDIENTS

#### Ingredients:

Cas#	%	Chemical Name
108-10-1	100%	Methyl isobutyl ketone

### 4 FIRST AID MEASURES

**Inhalation:** If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.  
**Skin Contact:** Promptly flush skin with water until all chemical is removed.  
**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.  
**Ingestion:** Do not induce vomiting unless instructed to do so by a physician. 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  
 No data available

Advice for firefighters  
 Wear self-contained breathing apparatus for firefighting if necessary.

Further information  
 No data

### 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.  
**Storage Requirements:** Keep container tightly closed. Store in cool/dry area.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Personal Protective Equipment:** Methyl isobutyl ketone cas#:(108-10-1) [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. Splash contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 212 min Material tested:Butoject (KCL 897 / Aldrich Z677647, 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.  
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, 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.  
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Methyl isobutyl ketone cas#:(108-10-1) [100%]

Components with workplace control parameters

TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
STEL	75 ppm	USA. ACGIH Threshold Limit Values (TLV)
Upper Respiratory Tract irritation Headache Dizziness 2010 Adoption Substances for which there is a Biological Exposure Index or Indices (see BEI section) Confirmed animal carcinogen with unknown relevance to humans		
TWA	50 ppm 205 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
STEL	75 ppm 300 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
TWA	100 ppm 410 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants
The value in mg/m3 is approximate.		
TWA	20 ppm	USA. ACGIH Threshold Limit Values (TLV)

Upper Respiratory Tract irritation Headache Dizziness 2010 Adoption Substances for which there is a Biological Exposure Index or Indices (see BEI section) Confirmed animal carcinogen with unknown relevance to humans

TWA	50 ppm 205 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
ST	75 ppm 300 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits

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### PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless liquid.	<b>Odor:</b>	No data available
<b>Odor Threshold:</b>	No data available	<b>Solubility:</b>	20 g/l
<b>Spec Grav./Density:</b>	0.8	<b>Freezing/Melting Pt.:</b>	-80 °C (-112 °F)
<b>Viscosity:</b>	No data available	<b>Flash Point:</b>	14 °C (57 °F) - closed cup
<b>Boiling Point:</b>	117 - 118 °C (243 - 244 °F) at 1,013 hPa (760 mmHg)	<b>Vapor Density:</b>	3.46 - (Air = 1.0)
<b>Partition Coefficient:</b>	1.31	<b>Auto-Ignition Temp:</b>	No data available
<b>Vapor Pressure:</b>	20 hPa (15 mmHg) at 20 °C (68 °F)	<b>UFL/LFL:</b>	8 %(V) / 1.2 %(V)
<b>pH:</b>	No data available		
<b>Evap. Rate:</b>	No data available		
<b>Decomp Temp:</b>	No data available		

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### 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>	Oxidizers, Strong Bases;

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### TOXICOLOGICAL INFORMATION

Methyl isobutyl ketone cas#:(108-10-1) [100%]

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 2,080 mg/kg

Inhalation LC50 LC50 Inhalation - rat - 4 h - 8.2 - 16.4 mg/m<sup>3</sup>

Dermal LD50 LD50 Dermal - rabbit - > 16,000 mg/kg

Other information on acute toxicity no data available

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

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

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: 2B - Group 2B: Possibly carcinogenic to humans (4-Methylpentan-2-one)

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: no data available

Teratogenicity: Developmental Toxicity - mouse - Inhalation:

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

Developmental Toxicity - mouse - Inhalation:

Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Cardiovascular (circulatory) system.  
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):  
May cause respiratory irritation.

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: Blurred vision, Dermatitis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional Information:

RTECS: SA9275000

## 12 ECOLOGICAL INFORMATION

Methyl isobutyl ketone cas#:(108-10-1) [100%]

Information on ecological effects

Toxicity:

Toxicity to fish LC0 - *Leuciscus idus melanotus* - 480 mg/l - 48 h.

Toxicity to daphnia EC50 - *Daphnia magna* (Water flea) - 1,550 - 3,623 mg/l - 24 h.

and other aquatic invertebrates

Toxicity to algae EC50 - *Desmodesmus subspicatus* (green algae) - 980 - 2,000 mg/l - 48 h.

Persistence and degradability: Biodegradability Biotic/Aerobic

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

## 13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

## 14 TRANSPORT INFORMATION

UN1245, Methyl isobutyl ketone, 3, PGII

## 15 REGULATORY INFORMATION

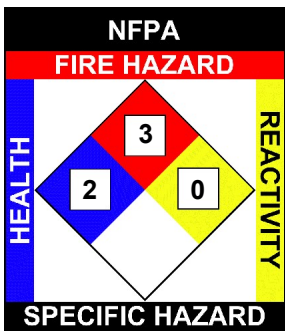
Component (CAS#) [%] - CODES

Regulatory CODE Descriptions

CERCLA = Superfund clean up substance  
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  
SARA313 = SARA 313 Title III Toxic Chemicals  
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

**16** **OTHER INFORMATION**

NFPA: Health = 2, Fire = 3, Reactivity = 0, Specific Hazard = n/a  
HMIS III: Health = 2(Chronic), Fire = 3, Physical Hazard = 0



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

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