Methyl Ethyl Ketone

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Methyl Ethyl Ketone
Synonyms: Ethyl Methyl Ketone, 2-Butanone, MEK
SDS Number: R-023
Product Code: 515411-PT, 515411-QT, 515411-1, 515411-5, 515411-30, 515411-55
Revision Date: 11/6/2015
Version: 1.0
CAS Number: 78-93-3
Chemical Formula: C4H8O
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
Web: www.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, Acute toxicity, 3 Oral
- Health, Acute toxicity, 3 Dermal
- Health, Acute toxicity, 3 Inhalation
- Health, Specific target organ toxicity - Single exposure, 1

GHS Label elements, including precautionary statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

![GHS Pictograms]

GHS Hazard Statements:
- H225 - Highly flammable liquid and vapor
- H301 - Toxic if swallowed
- H311 - Toxic in contact with skin
- H331 - Toxic if inhaled
- H370 - Causes damage to organs

GHS Precautionary Statements:
- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P307+311 - IF exposed: Call a POISON CENTER or doctor/physician.
3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<table>
<thead>
<tr>
<th>Cas#</th>
<th>%</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-93-3</td>
<td>100%</td>
<td>Methyl ethyl ketone</td>
</tr>
</tbody>
</table>

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.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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
Flash back possible over considerable distance. Container explosion may occur under fire conditions.

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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low 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. Store in cool/dry well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protective Equipment:
Methyl ethyl ketone (78-93-3) [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.

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: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Methyl ethyl ketone (78-93-3) [100%]: no data available

### PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Acetone-like, Pungent, Sweet, (Strong)</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>soluble</td>
</tr>
<tr>
<td>Spec Grav./Density</td>
<td>0.805</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>80 °C (176 °F) - lit</td>
</tr>
<tr>
<td>Freezing/Melting Pt.</td>
<td>-87 °C (-125 °F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>-3 °C (27 °F) - closed cup</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Octanol</td>
<td>log Pow: 0.29</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>95 hPa (71 mmHg) at 20 °C (68 °F)</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2.49 - (Air = 1.0)</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Evap. Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-Ignition Temp</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomp Temp</td>
<td>No data available</td>
</tr>
<tr>
<td>UFL/LFL</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### STABILITY AND REACTIVITY

| Stability                        | No data available            |
| Chemical Stability               | Stable under normal conditions. |
| Conditions to Avoid              | Avoid moisture. Heat, flames and sparks. Extremes of temperature and direct sunlight. |
| Materials to Avoid               | Strong Oxidizing Agents. Reducing agents; |
| Hazardous Decomposition          | No data available            |

### TOXICOLOGICAL INFORMATION

Methyl ethyl ketone (78-93-3) [100%]

Information on toxicological effects

Acute toxicity:
Oral LD50: no data available
Inhalation LC50:
Dermal LD50
Other information on acute toxicity

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: Eyes: no data available

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:
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.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
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: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

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

Signs and Symptoms of Exposure: Methyl alcohol may be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Effects due to ingestion may include: Nausea, Dizziness, Gastrointestinal disturbance, Weakness, Confusion, Drowsiness, Unconsciousness, 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: Not available

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**ECOLOGICAL INFORMATION**

Methyl ethyl ketone (78-93-3) [100%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available
DISPOSAL CONSIDERATIONS

Methyl ethyl ketone (78-93-3) [100%]

Waste treatment methods

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

TRANSPORT INFORMATION

UN1193, Ethyl methyl ketone or Methyl ethyl ketone, 3, PGII

REGULATORY INFORMATION

Component (CAS#)[%] - CODES

---------------------------------------------------------------------
RQ(5000LBS), Methyl ethyl ketone (78-93-3) [100%] CERCLA, HAP, HWRCRA, MASS, NJHS, OSHAWAC, PA, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

Regulatory CODE Descriptions

---------------------------------------------------------------------
RQ = Reportable Quantity
CERCLA = Superfund clean up substance
HAP = Hazardous Air Pollutants
HWRCRA = RCRA Hazardous Wastes
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHA\WAC = 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
NFPA: Health = 2, Fire = 3, Reactivity = 0, Specific Hazard = n/a
HMIS III: Health = 2(Chronic), Fire = 3, Physical Hazard = 0

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