Safety Data Sheet
METHYL AMYL KETONE

Version 1.0 Date: 06/15/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: METHYL AMYL KETONE
Product Use Description: Solvent.

Manufacturer or supplier's details
Company: Solvents and Petroleum Service, Inc.
1405 Brewerton Rd. Syracuse, NY 13208
Phone 800-315-4467 Fax 315-454-8230

Emergency telephone number: CHEMTREC 800.424.9300

Additional Information: E-Mail: mark@solventsand[petroleum.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids: Category 3
Acute toxicity (Oral): Category 4
Acute toxicity (Inhalation): Category 4
Specific target organ toxicity - single exposure: Category 3 (Central nervous system)

GHS Label element
Hazard pictograms:

Signal word: Warning
Hazard statements: H226 Flammable liquid and vapor.
H302 + H332 Harmful if swallowed or if inhaled
H336 May cause drowsiness or dizziness.
Precautionary statements:

**Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ eye protection/ face protection.

**Response:**
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
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.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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

**Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

**Potential Health Effects**

Aggravated Medical Condition: None known.

Symptoms of Overexposure:
- Irritation
- Pain
- Redness
- Headache
- Fatigue
- Dizziness
- Nausea

**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.

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

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.

Emergency Overview

<table>
<thead>
<tr>
<th>CAUTION!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
</tr>
<tr>
<td>Color</td>
</tr>
<tr>
<td>Odor</td>
</tr>
<tr>
<td>Hazard Summary</td>
</tr>
</tbody>
</table>

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-43-0</td>
<td>Methyl amyl ketone</td>
<td>90 - 100</td>
</tr>
</tbody>
</table>

Molecular formula : C7H14O

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Do not leave the victim unattended.
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
If unconscious place in recovery position and seek medical advice.
If breathing has stopped, apply artificial respiration.
If breathing is difficult, give oxygen.
If symptoms persist, call a physician.
In case of skin contact: If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.

If swallowed: If swallowed, call a poison control centre or doctor immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Keep respiratory tract clear.

Most important symptoms and effects, both acute and delayed:
- Irritation
- Pain
- Redness
- Headache
- Fatigue
- Dizziness
- Nausea

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
- Alcohol-resistant foam
- Carbon dioxide (CO2)
- Dry chemical

Unsuitable extinguishing media:
- High volume water jet

Specific hazards during firefighting:
- Do not allow run-off from fire fighting to enter drains or water courses.
- Flash back possible over considerable distance.
- Water may be ineffective.

Hazardous combustion products:
- Carbon oxides

Specific extinguishing methods:
- Use a water spray to cool fully closed containers.

Further information:
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- For safety reasons in case of fire, cans should be stored separately in closed containments.
- Collect contaminated fire extinguishing water sepa-
rately. This must not be discharged into drains.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

**NFPA Flammable and Combustible Liquids Classification:**
Combustible Liquid Class II

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**: 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**: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

**Methods and materials for containment and cleaning up**: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

### SECTION 7. HANDLING AND STORAGE

**Advice on safe handling**: Avoid formation of aerosol. Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

**Conditions for safe storage**: No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-
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sealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>110-43-0</td>
<td>Methyl amyl ketone</td>
<td>TWA</td>
<td>50 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm 465 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm 465 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm 465 mg/m3</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required.
In the case of vapor formation use a respirator with an approved filter.

Hand protection
Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Hygiene measures: Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>pungent, sweet</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>0.2 ppm</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
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<tr>
<td>Freezing Point (Melting point/range)</td>
<td>-36 °C (-33 °F)</td>
</tr>
<tr>
<td>Boiling Point (Boiling point/boiling range)</td>
<td>152 °C (306 °F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>39 °C (102 °F)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>0.34</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Burning rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>2.8 mbar @ 20 °C (68 °F)</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>3.9</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.81 @ 20 °C (68 °F)</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>slightly soluble</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Pow: 95.4</td>
</tr>
<tr>
<td></td>
<td>log Pow: 1.98</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>393 °C</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Vapors may form explosive mixture with air.
Conditions to avoid : Heat, flames and sparks.
Incompatible materials : Strong oxidizing agents
Hazardous decomposition products : carbon dioxide and carbon monoxide

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Components:**

**110-43-0:**
- Acute oral toxicity : LD50 (rat): 1,670 mg/kg
  Assessment: The component/mixture is moderately toxic after single ingestion.
- Acute inhalation toxicity : LC50 (rat): > 16.7 mg/l
  Exposure time: 4 h
  Assessment: The component/mixture is moderately toxic after short term inhalation.
- Acute dermal toxicity : LD50 (rat): > 2,000 mg/kg

**Skin corrosion/irritation**

**Components:**

**110-43-0:**
Species: rabbit
Exposure time: 4 h
Result: No skin irritation
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Serious eye damage/eye irritation

Components:
110-43-0:
Species: rabbit
Result: No eye irritation

Respiratory or skin sensitisation

Components:
110-43-0:
Test Type: lymph node assay
Species: mouse
Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:
110-43-0:
Genotoxicity in vitro: Test Type: Mammalian cell gene mutation assay
Test species: Mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo: Test Type: DNA damage and/or repair
Test species: rat (female)
Application Route: inhalation (vapour)
Result: negative

Germ cell mutagenicity-Assessment: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:
110-43-0:
Remarks: This information is not available.

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Components:
110-43-0:
Effects on fertility: Test Type: Screening test
Application Route: Inhalation
Dose: 0, 80, 400, 1000 ppm
Duration of Single Treatment: 6 h  
Frequency of Treatment: 7 days/week  
General Toxicity - Parent: NOAEC: 1,000 ppm  
Method: OECD Test Guideline 421  
GLP: yes

Reproductive toxicity - Assessment: No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

**STOT - single exposure**

**Product:** No data available  
**Components:**  
110-43-0:

<table>
<thead>
<tr>
<th>Exposure routes:</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects., May cause drowsiness or dizziness.</td>
<td></td>
</tr>
</tbody>
</table>

**STOT - repeated exposure**

**Product:** No data available  
**Components:**  
110-43-0: No data available

**Repeated dose toxicity**

**Components:**  
110-43-0:  
Species: rat  
NOAEL: 20 mg/kg  
Application Route: Oral  
Exposure time: 13 wk

**Aspiration toxicity**

**Components:**  
110-43-0:  
No aspiration toxicity classification
Further information

Product:
Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components: 110-43-0:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 131 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: Immobilization

Toxicity to algae:
EC50 (Selenastrum capricornutum (green algae)): 98.2 mg/l
Exposure time: 72 h
Test Type: static test

Ecotoxicology Assessment
Acute aquatic toxicity: Harmful to aquatic life.
Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability

Components: 110-43-0:
Biodegradability: aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 69 %
Exposure time: 28 d

Chemical Oxygen Demand (COD): 2,420 mg/g

Bioaccumulative potential

Components:
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110-43-0:
Partition coefficient: n-octanol/water : log Pow: 1.98

Mobility in soil
No data available

Other adverse effects
No data available

Product:
Regulation  40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks  This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO’s Environmental Services Group at 800-637-7922.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN1110, n-Amyl methyl ketone, 3, III, Flash Point:39 °C(102 °F)

IMDG (International Maritime Dangerous Goods): UN1110, N-AMYL METHYL KETONE, 3, III
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DOT (Department of Transportation): UN1110, n-Amyl methyl ketone, 3, III

Special Notes: The flash point for this material is greater than 100 F (38 C). Therefore, in accordance with 49 CFR 173.150(f) non-bulk containers (<450L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

SECTION 15. REGULATORY INFORMATION

OSHA Hazards: Combustible Liquid, Harmful by ingestion., Mild skin irritant, Moderate eye irritant

WHMIS Classification: B3: Combustible Liquid
D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Fire Hazard
Acute Health Hazard

SARA 302: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489).

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. Clean-Water Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations**

**Massachusetts Right To Know**
110-43-0  Methyl amyl ketone  90 - 100 %

**Pennsylvania Right To Know**
110-43-0  Methyl amyl ketone  90 - 100 %

**New Jersey Right To Know**
110-43-0  Methyl amyl ketone  90 - 100 %

**California Prop 65**
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Reporting status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland. New notified substances and declared preparations</td>
<td>y (positive listing)</td>
<td>(The formulation contains substances listed on the Swiss Inventory)</td>
</tr>
<tr>
<td>United States TSCA Inventory</td>
<td>y (positive listing)</td>
<td>(On TSCA Inventory)</td>
</tr>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>y (positive listing)</td>
<td>(All components of this product are on the Canadian DSL.)</td>
</tr>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
<td>y (positive listing)</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemical Substances</td>
<td>y (positive listing)</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ENCS - Existing and New Chemical Substances Inventory</td>
<td>y (positive listing)</td>
<td>(On the inventory,</td>
</tr>
</tbody>
</table>
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| Japan. ISHL - Inventory of Chemical Substances (METI) | : y (positive listing) (On the inventory, or in compliance with the inventory) |
| Korea. Korean Existing Chemicals Inventory (KECI) | : y (positive listing) (On the inventory, or in compliance with the inventory) |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS) | : y (positive listing) (On the inventory, or in compliance with the inventory) |
| China. Inventory of Existing Chemical Substances in China (IECSC) | : y (positive listing) (On the inventory, or in compliance with the inventory) |

SECTION 16. OTHER INFORMATION

Further information

NFPA:

Flammability
Health: 2
Instability: 0
Special hazard.

HMIS III:

| HEALTH | FLAMMABILITY | PHYSICAL HAZARD |
| 2 | 2 | 0 |

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Solvents and Petroleum Service, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.