

(Methyl Amyl Ketone) DATE PREPARED: 6/17/2016

Section 1. Product and Company Identification

Product Name Methyl Amyl Ketone

110-43-0 **CAS Number**

Parchem - fine & specialty chemicals

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EMERGENCY RESPONSE NUMBER

CHEMTEL

Toll Free US & Canada: 1 (800) 255-3924

All other Origins: 1 (813) 248-0585 Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture **Physical hazards**

Flammable liquids Category 3

Health hazards

Acute toxicity, oral Category 4

Acute toxicity, inhalation Category 4

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2B

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure Category 3 narcotic effects

Environmental hazards

Not classified.

GHS Label Elements

Pictograms:



Signal word: WARNING

Hazard and precautionary statements

Hazard Statements

H226 Flammable liquid and vapor.

H302 + H332 Harmful if swallowed or if inhaled.

H305 May be harmful if swallowed and enters airways.

H315 Causes skin irritation.

H320 Causes eye irritation.

H335 May cause respiratory irritation.



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H336 May cause drowsiness or dizziness.

Precautionary Statements

Prevention

- 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/lighting equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing mist or vapor.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/eye protection/face protection.

Response

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P303 + P361 +
- P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P321 Specific treatment (see this label).
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P370 + P378 In case of fire: Use appropriate media to extinguish.

Storage

- 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.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: Not applicable.



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Section 3. Composition / Information on Ingredients

Common Name Methyl Amyl Ketone

Synonym(s) Butylacetone; Methyl n-Pentyl Ketone; Heptan-2-one

CAS Number 110-43-0

COMPONENT	CAS NUMBER	CONCENTRATION
Methyl Amyl Ketone	110-43-0	100%

Section 4. First Aid Measures

Inhalation: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

Skin contact: Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.

Eye contact: Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.

Ingestion: Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Most important symptoms/effects, acute and delayed: Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.

Indication of immediate medical attention and special treatment needed: Not available

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Section 5. Firefighting Measures

Suitable extinguishing media: Water spray, fog, CO₂, dry chemical, or alcohol resistant foam. **Unsuitable extinguishing media:** Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical: Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and precautions for firefighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full face piece operated in the positive pressure demand mode when fighting fires.

Firefighting equipment/instructions: In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water



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sources. Dike for water control.

Specific methods: Use water spray to cool unopened containers.

General fire hazards: Static charges generated by emptying package in or near flammable

vapor may cause flash fire.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor.

Methods and materials for containment and cleaning up: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean surface thoroughly to remove residual contamination. Collect and dispose of spillage as indicated in section 13 of the SDS.

Never return spills in original containers for re-use.

Environmental precautions: Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Retain and dispose of contaminated wash water.

Section 7. Handling and Storage

Precautions for safe handling: Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid prolonged exposure. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities: Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

Section 8. Exposure Controls / Personal Protection

Occupational Exposure Limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Туре	Value
Methyl Amyl Ketone (CAS#110-43-0)	PEL	465 mg/m ³
		100 ppm

US ACGIH Threshold Limit Values

MaterialTypeValue		
Methyl Amyl Ketone (CAS#110-43-0)	TWA	50 ppm



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US NIOSH: Pocket Guide to Chemical Hazards

MaterialTypeValue		
Methyl Amyl Ketone (CAS#110-43-0)	REL	465 mg/m ³
		100 ppm
	TWA	465 mg/m ³
		100 ppm

Biological limit values: No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls: Use explosion-proof ventilation equipment to stay below exposure limits. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection: Chemical resistant gloves.

Other: Not available.

Respiratory protection: Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards: Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations: When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9. Physical and Chemical Properties

Appearance: Liquid. **Color:** Refer to Spec Sheet **Odor:** Characteristic.

Odor threshold: Not available.

pH: Not available.

Melting point/freezing point: -31.9°F (-35.5°C)

Initial boiling point and boiling range: 304.7°F (151.5°C) 101.325 kPa

Flash point (Closed Cup): 106.0°F (41.1°C)

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits



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Flammability limit - lower: Not available.
Flammability limit - upper: Not available.
Explosive limit - lower: Not available.
Explosive limit - upper: Not available.

Vapor pressure: 0.21~kPa at 25°C / 2.14~mmHg at 25°C

Vapor density: 3.9

Relative density: Not available.

Solubility(ies)

Solubility (water): Insoluble

Partition coefficient (n-octanol/water): 2 Auto-ignition temperature: 740°F (393.33°C) Decomposition temperature: Not available.

Viscosity: Not available.

Other information

Density: 0.82 g/cm³ estimated **Dynamic viscosity:** 0.77 mPa*s

Flammability class: Combustible II estimated Heat of combustion (NFPA 30B): 35 kJ/g Kinematic viscosity: 0.954506 mm²/s estimated

Molecular formula: C₇H₁₄O Molecular weight: 114.18 g/mol Specific gravity: 0.81 at 25°C

Section 10. Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and

transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal

use.

Conditions to avoid: Avoid heat, sparks, open flames and other ignition sources. Avoid

temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials: Strong acids.

Hazardous decomposition products: No hazardous decomposition products if stored and

handled as indicated.

Section 11. Toxicological Information

Information on likely routes of exposure

Inhalation: Vapors have a narcotic effect and may cause headache, fatigue, dizziness, and

nausea. Harmful if inhaled. May be harmful if swallowed and enters airways.

Skin contact: Causes skin irritation.



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Eye contact: Causes eye irritation. Causes mild eye irritation.

Ingestion: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics: Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting.

Information on toxicological effects

Acute toxicity: Harmful if inhaled. Harmful if swallowed. May be harmful if swallowed and enters airways. Narcotic effects. May cause respiratory irritation. Expected to be a low hazard for usual industrial or commercial handling by trained personnel

Acute Toxicity

Dermal LD50 - Rabbit: 12,600 mg/kg

Oral LD50 - Mouse: 730 mg/kg Oral LD50 - Rat: 1.67 g/kg Other LD50 - Rat: 800 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation: Causes skin irritation.

Skin - rabbit - Open irritation test - 24 h

Serious eye damage/eye irritation: Causes eye irritation.

Respiratory or skin sensitization

Respiratory sensitization: Not available.

Skin sensitization: This product is not expected to cause skin sensitization.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed. **Reproductive toxicity:** This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Respiratory tract irritation. Narcotic effects.

Specific target organ toxicity - repeated exposure: Not classified. **Aspiration hazard:** May be harmful if swallowed and enters airways.

Chronic effects: Prolonged inhalation may be harmful.

Section 12. Ecological Information

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment



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Aquatic Toxicity

Fish LC50 - Fathead minnow (Pimephales promelas): 126 - 137 mg/L (96h)

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: Not available.

Partition coefficient (n-Octanol/water): logKow: 1.98

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are

expected from this component.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

ADN

UN number: 1110

UN proper shipping name: n-Amyl Methyl Ketone

Transport hazard class(es): 3

Subsidiary class(es): Packing group: |||

Environmental hazards: No

Labels required: 3

ADR

UN number: 1110

UN proper shipping name: n-Amyl Methyl Ketone

Transport hazard class(es): 3

Subsidiary class(es): Packing group: |||

Environmental hazards: No

Labels required: 3

RID

UN number: 1110

UN proper shipping name: n-Amyl Methyl Ketone

Transport hazard class(es): 3

Subsidiary class(es): Packing group: |||

Environmental hazards: No

Labels required: 3



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DOT - Bulk

UN number: 1110

Proper shipping name: n-Amyl Methyl Ketone

Hazard class: 3 Packing group: Ⅲ Marine pollutant: No

Environmental hazards: No Packaging exceptions: 150 Packaging bulk: 242 Labels required: 3

DOT - Non-Bulk

Not regulated as dangerous goods.

IATA

UN number: 1110

UN proper shipping name: n-Amyl Methyl Ketone

Transport hazard class(es): 3

Subsidiary class(es): Packing group: |||

Environmental hazards: No

Labels required: 3

IMDG

UN number: 1110

UN proper shipping name: n-Amyl Methyl Ketone

Transport hazard class(es): 3

Subsidiary class(es): Packing group: |||
Marine pollutant: No
Environmental hazards: No

Labels required: 3

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not

applicable.

Section 15. Regulatory Information

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

SARA 304 Emergency release notification: Not regulated.



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OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed. TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard: Yes
Delayed Hazard: No
Fire Hazard: Yes
Pressure Hazard: No
Reactivity Hazard: No

SARA 302 Extremely hazardous substance: Not listed.

SARA 311/312 Hazardous chemical: Yes SARA 313 (TRI reporting): Not regulated.

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

US State Regulations

US - Minnesota Haz Subs: Hazardous substance

Methyl Amyl Ketone (CAS# 110-43-0) Hazardous substance.

US Massachusetts RTK - Substance List

Methyl Amyl Ketone (CAS# 110-43-0)

US New Jersey Worker and Community Right-to-Know Act

Methyl Amyl Ketone (CAS# 110-43-0)

US Pennsylvania Worker and Community Right-to-Know Law

Methyl Amyl Ketone (CAS# 110-43-0)

US Rhode Island RTK

Not regulated.

US California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Not listed.

International Inventories

Country(s) or	Inventory name	On inventory
region		(yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No



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China	Inventory of Existing Chemical Substances in	Yes
	China (IECSC)	
Europe	European Inventory of Existing Commercial	Yes
	Chemical Substances (EINECS)	
Europe	European List of Notified Chemical Substances	No
	(ELINCS)	
Japan	Inventory of Existing and New Chemical	Yes
	Substances (ENCS)	
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical	Yes
	Substances (PICCS)	
United States &	Toxic Substances Control Act (TSCA) Inventory	Yes
Puerto Rico		

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

HMIS Rating Health: 2

Flammability: 2 Reactivity: 0

Section 16. Other Information

Disclaimer: 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.

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^{*} A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).