

METHYL AMYL KETONE

Version	Revision Date:	SDS Number:	Date of last issue: 06/07/2022
2.6	04/20/2023	150000001054	Date of first issue: 09/06/2016
PRD		SDSUS / Z8 / 0001	

SECTION 1. IDENTIFICATION

Product name : METHYL AMYL KETONE

Other name : MAK

Recommended use of the chemical and restrictions on use

Recommended use Solvent

Restrictions on use None known.

Supplier's details

Distributor Silver Fern Chemical, Inc.

Address 121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA

Customer Service 1-866-282-3384; Info@silverfernchemical.com
Website: Silverfernchemical.com

24 Hour Emergency Telephone: Infotrac 1-800-535-5053 (USA & Canada)
Outside USA & Canada 1-352-323-3500

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Specific target organ toxicity : Category 3 (Central nervous system)
- single exposure

GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H302 + H332 Harmful if swallowed or if inhaled.

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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 vapors.

P264 Wash skin 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 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam 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 to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : 00133-00

CAS-No. : 110-43-0

Components

Chemical name	CAS-No.	Concentration (% w/w)
methyl amyl ketone	110-43-0	> 99

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Eastman is committed to the safety, health and environment of our employees, our customers, and the communities we operate within. As part of this commitment, Eastman's Safety Data Sheets (SDS) are prepared in accordance with all applicable national and local regulations. The compositions of our documents reflect these requirements which include, but are not limited to, requirements under the Globally Harmonized System of Classification and Labeling (GHS). These compositions commonly involve the use of ranges versus specific analytical values. If you require a composition that is more specific, please refer to the Certificate of Analysis, sales specification, or contact your Customer Service Representative.

SECTION 4. FIRST AID MEASURES

If inhaled	:	Move to fresh air. If breathed in, move person into fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and water. Wash contaminated clothing before re-use. If symptoms persist, call a physician.
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If eye irritation persists, consult a specialist.
If swallowed	:	Seek medical advice.
Most important symptoms and effects, both acute and delayed	:	Harmful if swallowed or if inhaled. May cause drowsiness or dizziness.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray to extinguish. Dry chemical Carbon dioxide (CO2) Foam
Unsuitable extinguishing media	:	None known.
Hazardous combustion products	:	No hazardous combustion products are known
Further information	:	Flammable liquid and vapor.
Special protective equipment	:	Wear an approved positive pressure self-contained breathing

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for fire-fighters

apparatus in addition to standard fire fighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Wear appropriate personal protective equipment. Local authorities should be advised if significant spillages cannot be contained.

Environmental precautions : Avoid release to the environment.

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

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not taste or swallow.
Avoid contact with skin.
Do not breathe vapors or spray mist.
Use only with adequate ventilation.
Wash thoroughly after handling.

Conditions for safe storage : Keep container tightly closed and in a well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methyl amyl ketone	110-43-0	TWA	50 ppm	ACGIH
		TWA	100 ppm 465 mg/m ³	NIOSH REL
		TWA	100 ppm 465 mg/m ³	OSHA Z-1
		TWA	100 ppm 465 mg/m ³	OSHA P0

Engineering measures : Ensure adequate ventilation.

Personal protective equipment

Respiratory protection : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hand protection

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Remarks	:	Wear suitable gloves.
Eye protection	:	Safety glasses with side-shields
Protective measures	:	Wear suitable protective equipment.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless
Odor	:	pungent, sweet
Odor Threshold	:	0.2 ppm
pH	:	not determined
Melting point/range	:	-33 °F / -36 °C
Boiling point/boiling range	:	306 °F / 152 °C
Flash point	:	102 °F / 39 °C
		Method: closed cup
Evaporation rate	:	0.34
Self-ignition	:	739 °F / 393 °C
		Method: ASTM D2155
Vapor pressure	:	2.8 mbar (68 °F / 20 °C)
Relative vapor density	:	3.9
Relative density	:	0.81 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	slightly soluble
Partition coefficient: n-octanol/water	:	Pow: 95.4 log Pow: 1.98
Autoignition temperature	:	not determined
Decomposition temperature	:	Method: DTA

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No exotherm to boiling

Viscosity
Viscosity, dynamic : not determined

Explosive properties : No data available

Oxidizing properties : No data available

Molecular weight : 114.2 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : None known.
Stable

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed or if inhaled.

Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Components:

methyl amyl ketone:

Acute oral toxicity : LD50 Oral (Rat): 1,600 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 16.7 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 Dermal (Rat): > 2,001 mg/kg

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Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : No data available

Components:

methyl amyl ketone:

Species : Rabbit
Exposure time : 24 h
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks : No data available

Components:

methyl amyl ketone:

Species : Rabbit
Result : slight irritation
Exposure time : 24 h

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Remarks : No data available

Components:

methyl amyl ketone:

Test Type : Skin sensitization
Species : Mouse
Result : Does not cause skin sensitization.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Product:

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Remarks : This information is not available.

IARC Group 2B: Possibly carcinogenic to humans
methyl isobutyl ketone 108-10-1

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility : Remarks: No data available

STOT-single exposure

May cause drowsiness or dizziness.

Product:

Remarks : No data available

STOT-repeated exposure

Not classified based on available information.

Product:

Remarks : No data available

Aspiration toxicity

Not classified based on available information.

Components:

methyl amyl ketone:

May be harmful if swallowed and enters airways.

Experience with human exposure

Product:

Inhalation : Remarks: Harmful if inhaled.
May cause drowsiness or dizziness.

Skin contact : Remarks: None known.

Eye contact : Remarks: None known.

Ingestion : Remarks: Harmful if swallowed.

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Further information

Product:

Remarks : None known.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

methyl amyl ketone:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 131 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : ErC50 (Selenastrum capricornutum (green algae)): 98.2 mg/l
Exposure time: 72 h
Test Type: Growth inhibition

Persistence and degradability

Components:

methyl amyl ketone:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 69 %
Exposure time: 28 d

Biochemical Oxygen Demand (BOD) : Biochemical oxygen demand within 5 days
1,770 mg/g

BOD-20:
2,000 mg/g

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

Bioaccumulative potential

Components:

methyl amyl ketone:

Partition coefficient: n-octanol/water : Pow: 95.4
log Pow: 1.98

Mobility in soil

No data available

Other adverse effects

No data available

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 1110
Proper shipping name : n-Amyl methyl ketone
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1110
Proper shipping name : n-AMYL METHYL KETONE

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 1110
Proper shipping name : n-Amyl methyl ketone

Class : CBL
Packing group : III
Labels : None
ERG Code : 128
Marine pollutant : no
Remarks : combustible liquid, Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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SECTION 15. REGULATORY INFORMATION

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 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)

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.

California Prop. 65

WARNING: This product can expose you to chemicals including methyl isobutyl ketone, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:

TCSI : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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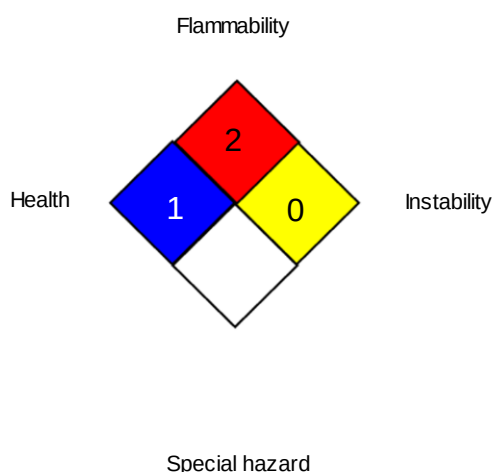
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	2
FLAMMABILITY		2
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to

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50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

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