

Methyl Ethyl Ketone, ACS

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Methyl Ethyl Ketone, ACS

Synonyms/Generic Names: MEK, 2-Butanone

Product Number: CP-C2201, CP-E2201

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: ChemPure Brand Chemicals
39103 Warren Road
Westland, MI 48185

For More Information Call: 734-884-4773 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC - 800-424-9300 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target organ effect, Irritant

Target Organs: Central nervous system

Signal Words: Danger **Pictograms:**



GHS Classification:

Acute toxicity, Oral	Category 5
Acute toxicity, Inhalation	Category 5
Flammable liquids	Category 2
Skin irritation	Category 2
Eye irritation	Category 2A
Specific target organ toxicity- single exposure	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H225	Highly flammable liquid and vapor.
H303+H333	May be harmful if swallowed or inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
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Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Ingestion	May be harmful if swallowed.

NFPA Ratings

Health	1
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	3
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Methyl Ethyl Ketone	>99	78-93-3	201-159-0	C ₄ H ₈ O	72.11 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIREFIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Flammable liquid. Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. Do not use direct water stream, may spread the fire.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. Containers may rupture in the head of the fire. (See also Stability and Reactivity section)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to a federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use.

Conditions for safe storage, including any incompatibilities

Store in tightly closed, original containers in a cool, dry, well ventilated area. Do not store with strong oxidizing agents, inorganic acids, amines, caustics, copper, ammonia, isocyanates or pyridine.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers

Component	Exposure Limits	Basis	Entity
Methyl Ethyl Ketone	200 ppm 590 mg/m ³	TLV	ACGIH
	300 ppm 885 mg/m ³	STEL	ACGIH
	200 ppm 590 mg/m ³	PEL	OSHA
	200 ppm 590 mg/m ³	REL	NIOSH
	300 ppm 885 mg/m ³	STEL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield if splashing is likely to occur.
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Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid
Odor	Pungent
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-86°C (-123°F)
Initial boiling point and boiling range	80°C (176°F)
Flash point	-3°C (27°F) Closed cup
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	LFL: 1.8% UFL:11%
Vapor pressure	(@ 20°C) 78 mmHg
Vapor density	(air=1) 2.5
Relative density	(@25°C) .9560 g/cm ³
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Low Pow: 0.29
Auto-ignition temperature	404°C (759°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep away from heat, flame and sparks.
Incompatible Materials	Strong oxidizing agents, inorganic acids, amines, caustics, copper, ammonia, isocyanates or pyridine.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	LD50 Dermal - rabbit - 6,480 mg/kg
Eyes	Not Available
Respiratory	LC50 Inhalation - mouse - 4 h - 32,000 mg/m ³ LC50 Inhalation - Mammal - 38,000 mg/m ³
Ingestion	LD50 Oral - rat - 2,737 mg/kg

Carcinogenicity

IARC	No components 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 components 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 components 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 components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Burning, itching, redness may be harmful if absorbed through skin.
Eyes	Causes irritation. Redness, excessive blinking and watering eyes.
Respiratory	Coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
Ingestion	Nausea, vomiting, and central nervous system depression.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	May cause drowsiness or dizziness.
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50- Pimephales promelas (fathead minnow)- 3320 mg/l – 96 h mortality NOEC - Cyprinodon variegatus (sheepshead minnow) - 400 mg/l - 96 h
Aquatic Invertebrate	EC50- Daphnia magna (Water flea)- 7060 mg/l- 24 h LC50 - Daphnia magna (Water flea) - > 520 mg/l - 48 h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1193, Ethyl methyl ketone, 3, pg II
TDG	UN1193, ETHYL METHYL KETONE, 3, pg II
IMDG	UN1193, ETHYL METHYL KETONE, 3, pg II
Marine Pollutant	No
IATA/ICAO	UN1193, Ethyl methyl ketone, 3, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Methyl Ethyl Ketone
SARA 312	Methyl Ethyl Ketone
SARA 313	Listed: Methyl Ethyl Ketone
WHMIS Canada	Class B2: Flammable liquids

16. OTHER INFORMATION

Revision	Date
Revision 1	08-10-2011
Revision 2	08/15/2013
Revision 3	11/05/2021

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