

SAFETY DATA SHEET



Date Issued : 07/21/2005
MSDS No : MEK
Date-Revised : 07/29/2015
Revision No : 6

METHYL ETHYL KETONE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: METHYL ETHYL KETONE
PRODUCT CODE: MEK

MANUFACTURER

Distributed by Tarr, LLC
P.O. Box 12570
Portland, OR 97212
Product Stewardship: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Target Organ Toxicity (Single exposure), Category 3
Serious Eye Damage, Category 2A

Physical:

Flammable Liquids, Category 2

GHS LABEL



Flame

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.
H333: May be harmful if inhaled.
H335: May cause respiratory irritation.
H319: Causes serious eye irritation.
H315: Causes skin irritation.

PRECAUTIONARY STATEMENT(S)

General:

P270: Do not eat, drink or smoke when using this product.
P240: Ground and bond container and receiving equipment.

SAFETY DATA SHEET



Date Issued : 07/21/2005
MSDS No : MEK
Date-Revised : 07/29/2015
Revision No : 6

METHYL ETHYL KETONE

Prevention:

- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P262: Do not get in eyes, on skin, or on clothing.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Storage:

- P102: Keep out of reach of children.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

P273: Avoid release to the environment.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Highly flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful. May cause central nervous system depression. May be irritating to eyes, skin, nose, throat and respiratory tract.

POTENTIAL HEALTH EFFECTS

EYES: Liquid is mildly irritating to the eyes. High vapor concentrations may also be irritating.

SKIN: Liquid is slightly to moderately irritating to the skin. Prolonged or repeated liquid contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

INGESTION: Liquid is moderately toxic and may be harmful if swallowed; may produce CNS depression. Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspiration pneumonitis.

INHALATION: Vapors may be irritating to the nose, throat, and respiratory tract. Exposure to high vapor concentrations may cause central nervous system (CNS) depression.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing eye and skin disorders may be aggravated by exposure.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS	Wt. %
Ethyl methyl ketone	78-93-3	60 - 100

See Section 8 for Exposure Limits

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower

SAFETY DATA SHEET



Date Issued : 07/21/2005
MSDS No : MEK
Date-Revised : 07/29/2015
Revision No : 6

METHYL ETHYL KETONE

eyelids. Get immediate medical attention.

SKIN: Flush skin with water while removing contaminated clothing. If irritation occurs, get medical attention. Do not reuse clothing or shoes until cleaned.

INGESTION: Do not give liquids if victim is unconscious or drowsy. Otherwise, give 2 glasses of water and induce vomiting by giving 30cc syrup of ipecac (or touching finger to the back of victim's throat). Keep victim's head below hips while vomiting. Call doctor.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE EFFECTS: Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis.

NOTES TO PHYSICIAN: If victim is a child, give no more than 1 glass of water and 15cc (1 tablespoon) syrup of ipecac. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

5. FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

EXPLOSION HAZARDS: When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point.

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling. Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and

SAFETY DATA SHEET



Date Issued : 07/21/2005
 MSDS No : MEK
 Date-Revised : 07/29/2015
 Revision No : 6

METHYL ETHYL KETONE

clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

STORAGE: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

HAZARDOUS COMPONENTS					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Ethyl methyl ketone	TWA	200	590	200	590
	STEL			300	885

ENGINEERING CONTROLS: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical splash goggles and face shield in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash

SAFETY DATA SHEET



Date Issued : 07/21/2005
 MSDS No : MEK
 Date-Revised : 07/29/2015
 Revision No : 6

METHYL ETHYL KETONE

facility and a safety shower.

COMMENTS: May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Solubility in Water	Specific Gravity
Ethyl methyl ketone	-5	Appreciable	0.81

PHYSICAL STATE: Liquid

ODOR: Pungent odor.

COLOR: Clear, colorless liquid.

pH: NA = Not Applicable

PERCENT VOLATILE: 100

FLASHPOINT AND METHOD: (23°F)

FLAMMABLE LIMITS: 0.018 to 0.115

AUTOIGNITION TEMPERATURE: No data available.

VAPOR PRESSURE: 70.9

VAPOR DENSITY: Heavier than air.

BOILING POINT: 115.8°C (175°F) to (241°F)

FREEZING POINT: NDA = no data available.

MELTING POINT: No data available.

SOLUBILITY IN WATER: Appreciable

EVAPORATION RATE: Slower than ether.

DENSITY: 6.71

SPECIFIC GRAVITY: 0.81

(VOC): 6.710 LBS./gal.

10. STABILITY AND REACTIVITY

REACTIVITY: Yes

HAZARDOUS POLYMERIZATION: Avoid heat, flame, and other sources of ignition.

CONDITIONS TO AVOID: Avoid heat, sparks, flame and contact with strong oxidizing agents. Prevent vapor

SAFETY DATA SHEET



Date Issued : 07/21/2005

MSDS No : MEK

Date-Revised : 07/29/2015

Revision No : 6

METHYL ETHYL KETONE

accumulation.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion. There should be no decomposition if stored and applied as directed.

INCOMPATIBLE MATERIALS: Strong oxidizers.

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS:

In pregnant female rodents exposed by inhalation to high concentrations of methyl ethyl ketone (MEK) vapor (15x the OSHA PEL/TWA) minor developmentally toxic effects to the fetuses were observed. MEK has been demonstrated to potentiate (i.e. shorten the time of onset) the peripheral neuropathy caused by either n-hexane or methyl n-butyl ketone. MEK by itself has not been demonstrated to cause peripheral neuropathy. MEK can potentiate the neurotoxicity of hexacarbon compounds (n-hexane, methyl n-butylketone, and 2,5-hexanedione) and the liver and kidney toxicity of haloalkane solvents.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Do not flush to sewer.

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

BIOACCUMULATION/ACCUMULATION: Slower than ether.

AQUATIC TOXICITY (ACUTE): None identified.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

SAFETY DATA SHEET



Date Issued : 07/21/2005
MSDS No : MEK
Date-Revised : 07/29/2015
Revision No : 6

METHYL ETHYL KETONE

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Methyl Ethyl Ketone

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1193

PACKING GROUP: II

NAERG: 127

REPORTABLE QUANTITY (RQ) UNDER CERCLA: 5,000 lb

LABEL: Flammable liquid

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION



Flammable
Liquid

S23: Do not breathe gas/fumes/vapour/spray.

S15: Keep away from heat.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: To the best of our knowledge, this product is not listed as a toxic chemical under Section 313 of SARA Title III.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: 5,000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements under CFR 40 CFR 720.30.

SAFETY DATA SHEET



Date Issued : 07/21/2005
MSDS No : MEK
Date-Revised : 07/29/2015
Revision No : 6

METHYL ETHYL KETONE

OSHA HAZARD COMM. RULE: This material is hazardous as defined by the American OSHA Hazard Communication Standard (29 CFR 1910.1200).

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Flammable
Liquid

S23: Do not breathe gas/fumes/vapour/spray.

16. OTHER INFORMATION

REASON FOR ISSUE: Updated SDS information and changed to new format.

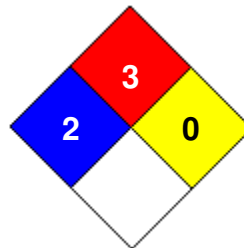
PREPARED BY: Compliance Dept.

REVISION SUMMARY: This MSDS replaces the 09/15/2014 MSDS. Revised: **Section 2: EMERGENCY OVERVIEW - IMMEDIATE CONCERNS.**

HMIS RATING

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY	<input type="checkbox"/>	3
PHYSICAL HAZARD	<input type="checkbox"/>	0
PERSONAL PROTECTION	<input type="checkbox"/>	H

NFPA CODES



NFPA STORAGE CLASSIFICATION: These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

MANUFACTURER DISCLAIMER: The information contained herein is based on the data available to us and is believed to be accurate. However, Tarr Acquisition, LLC (Tarr, LLC) makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Tarr, LLC assumes no responsibility for injuries from the use of the product described herein.