

# SAFETY DATA SHEET



Date Prepared : 07/21/2005

MSDS No : MEK

Date-Revised : 07/15/2016

Revision No : 7

## METHYL ETHYL KETONE

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** METHYL ETHYL KETONE

**PRODUCT CODE:** MEK

**ALTERNATE TRADE NAME(S):** Methyl Ethyl Ketone ACS

**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



Exclamation  
mark

**SIGNAL WORD:** DANGER

#### HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

#### PRECAUTIONARY STATEMENT(S)

**General:**

P270: Do not eat, drink or smoke when using this product.

P240: Ground and bond container and receiving equipment.

**Prevention:**

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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**

Chemical Name	Wt. %	CAS
Ethyl methyl ketone	100	78-93-3

**4. FIRST AID MEASURES**

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

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**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 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

**METHYL ETHYL KETONE****EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m <sup>3</sup>
Ethyl methyl ketone	OSHA PEL	TWA	200	590
		TWA	200	590
	ACGIH TLV	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 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**

**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.

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**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 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

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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****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)**

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**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.

**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**

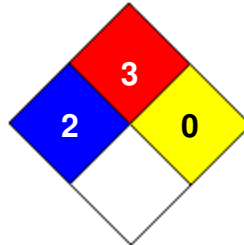
**REASON FOR ISSUE:** Updated SDS information and changed to new format.

**PREPARED BY:** Compliance **Date-Revised:** 07/15/2016

**REVISION SUMMARY:** This MSDS replaces the 07/29/2015 MSDS. Revised: **Section 1: PREPARED BY.**

**HMIS RATING**

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

**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.

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