

# SAFETY DATA SHEET: METHYL ETHYL KETONE

## 1. IDENTIFICATION

Product Name: METHYL ETHYL KETONE  
Synonyms: 2-Butanone; MEK; Ethyl methyl ketone  
Formula and Formula Weight: CH<sub>3</sub>COCH<sub>2</sub>CH<sub>3</sub> 72.11  
Integra numbers beginning with: M731.10; M731.50  
Recommended Use: Commercial/industrial use  
Restrictions on Use: No information available

INTEGRA Chemical Company      **24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)**  
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## 2. HAZARDS IDENTIFICATION

<u>OSHA Classification:</u>	<u>Hazard Category:</u>	<u>Hazard Statement:</u>
Eye Damage/Irritation	2A	Causes serious eye irritation.
Specific Target Organ Toxicity (single exposure)	3	May cause drowsiness or dizziness.
Flammable Liquids	2	Highly flammable liquid and vapor.

Signal Word: DANGER



### Precautionary Statements

#### Prevention:

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.  
Keep container tightly closed.  
Ground, bond container and receiving equipment.  
Use explosion-proof electrical, ventilating, lighting, equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing fume, gas, mist, vapors, spray.  
Wash thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves, eye protection, face protection.

#### Response

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water, shower.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Call a poison center, doctor if you feel unwell.  
If eye irritation persists: Get medical advice, attention.

#### Storage

Store locked up in a well ventilated place. Keep container cool and tightly closed.

#### Disposal

Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>Synonyms</u>	<u>CAS #</u>	<u>% Weight</u>
Methyl ethyl ketone	2-Butanone; MEK; Ethyl methyl ketone	00078-93-3	100

## 4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing. Flush skin with plenty of water. Seek medical attention.

Ingestion: Aspirator hazard. If swallowed, do not induce vomiting. Rinse mouth and give victim water or milk. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Additional notes: Symptoms and effects include irritation of the eyes, nose, and throat; central nervous system effects and peripheral

**5. FIRE-FIGHTING MEASURES**

Extinguishing Media:	Carbon dioxide, dry chemical or alcohol foam. Water may be ineffective.
Special Equipment and Precautions:	Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
Specific Hazards:	Vapors may flow along surfaces to distant ignition sources and flash back. Vapors are heavier than air and will settle in low areas. Material may float on water and re-ignite.
Hazardous combustion products:	Oxides of carbon.

**6. ACCIDENTAL RELEASE MEASURES**

Spill Procedures:	Remove all potential ignition sources. Prevent spread of spill. Wear full protective equipment including suitable respiratory protection. Absorb with sand or inert material. Place into suitable container for disposal.
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**7. HANDLING AND STORAGE**

Incompatible Materials:	Incompatible with strong acids, strong bases, strong oxidizers. Strong reducing agents, amines, ammonia, halogens, plastics, rubber, isocyanates, pyridines.
Storage and Handling:	Store locked up in a cool, dry, well-ventilated flammable liquids storage area or cabinet away from incompatible materials. Keep away from heat and ignition sources. Keep containers tightly closed and protect them from physical damage. Bond and ground containers when transferring liquid. Use only non-sparking tools and take precautionary measures against static discharge. No smoking. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Keep container tightly closed. Ground, bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing fume, gas, mist, vapors, spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, face protection.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

OSHA & ACGIH Exposure Limits:	
Methyl ethyl ketone	OSHA TWA: 200 ppm; 590 mg/m <sup>3</sup> ACGIH TWA: 200 ppm; 590 mg/m <sup>3</sup> ACGIH STEL: 300 ppm; 885 mg/m <sup>3</sup>
Engineering Controls:	Use general or local exhaust ventilation to meet TLV and PEL requirements.
Respiratory Protection:	Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved full facepiece chemical cartridge respirator with an organic vapor cartridge.
Skin/Eye Protective Equipment:	Safety goggles, protective clothing and gloves appropriate for the risk of exposure. Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers. Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Clear, colorless liquid
Odor:	Characteristic odor
Odor Threshold:	< 0.5 ppm
pH:	Not available
Melting/Freezing Point:	-87 °C
Initial Boiling Point and Boiling Range:	80 °C
Flash Point:	-6 °C
Evaporation Rate:	5.7 Butyl Acetate=1
Flammability:	Flammable
Flammable or Explosive	Upper: 11.5
Limits (% by volume in air)	Lower: 1.8
Vapor Pressure:	71 mm Hg@20°C
Vapor Density:	2.5
Relative Density:	0.81 Water=1
Solubility:	Soluble in about 4 parts water
Partition Coefficient: n-octanol/water	0.29
Auto-Ignition Temperature:	404 °C
Decomposition Temperature:	Not available
Viscosity:	Not available

**10. STABILITY AND REACTIVITY**

Reactivity:	No information available
Stability:	Stable

Possibility of Hazardous Reactions: Hazardous polymerization will not occur. Vapors may form explosive mixture with air.  
Conditions to Avoid: Heat, sparks and open flame. Extreme temperatures and exposure to direct sunlight.  
Incompatibles: Incompatible with strong acids, strong bases, strong oxidizers. Strong reducing agents, amines, ammonia, halogens, plastics, rubber, isocyanates, pyridines.  
Decomposition Products: Oxides of carbon.

## 11. TOXICOLOGICAL INFORMATION

### Effects of Over Exposure:

Inhalation: Harmful or fatal if inhaled May causes central nervous system effects, headache, nausea, vomiting, dizziness, drowsiness, respiratory tract irritation, unconsciousness, coma. May cause chemical pneumonitis and pulmonary edema. May cause numbness in the extremities  
Skin Contact: Contact with skin may be irritating. Material may be absorbed through the skin in harmful amounts. Prolonged contact may cause dermatitis.  
Eye Contact: May irritate or burn the eyes. May cause corneal damage.  
Ingestion: Harmful if swallowed. Ingestion may cause headache, dizziness, nausea, vomiting, gastrointestinal irritation. May cause central nervous system depression, drowsiness, nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.  
Chronic Effects: Central nervous system depression. Defatting of skin, dermatitis.  
Target Organs: Eyes, skin, respiratory system, central nervous system. In animals: liver, kidneys, lungs, spleen, brain.  
Additional Effects: May aggravate pre-existing skin conditions, respiratory conditions  
Reproductive Effects: This material may be teratogenic.  
Carcinogenicity: None identified

### Toxicity Data:

Methyl ethyl ketone	Irritation (skin, rabbit)	Moderate: 500 mg/24 hr
	LD50 (skin, rabbit)	6480 mg/kg
	LD50 (intraperitoneal, mouse)	616 mg/kg
	LD50 (oral, rat)	2737 mg/kg

## 12. ECOLOGICAL INFORMATION

	<u>Aquatic Toxicity Data:</u>	<u>Terrestrial Toxicity Data:</u>
Methyl ethyl ketone	LC50 Fathead minnow: 3220 mg/L - 96h	No information available
Persistence and degradability:	No information available	
Bioaccumulative potential:	No information available	
Mobility in soil:	No information available	
Other adverse effects:	No information available	

## 13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

## 14. TRANSPORTATION INFORMATION

This product is a regulated material for domestic ground transportation, per CFR Title 49.

UN Number:	UN1193
Proper Shipping Name:	Ethyl methyl ketone
Packing Group:	II
Hazard Class:	3
Environmental hazards:	No information available
Special precautions:	No information available
Bulk transport:	No information available

## 15. REGULATORY INFORMATION

Methyl ethyl ketone is listed in the TSCA inventory.

## 16. OTHER INFORMATION

OSHA SDS #: 25939 rev 102 12.20.2016

NE = Not established, NA = Not applicable or Not available

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\*\*\*\*\* END OF SDS \*\*\*\*\*