MATERIAL SAFETY DATA SHEET

Methyl Isobutyl Ketone (MIBK)

Section 1 - Chemical Product and Company Identification

MSDS Name:	**Methyl Isobutyl ketone**, 99.5%
Synonyms:	Hexone, Isopropylacetone, 4-Methyl-2-oxopentane, MIBK.

Company Identification: (INDIA)	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
For information in the INDIA, call:	Tel: +91 - 22 - 2275 5555 / 6184 0000, Fax: +91 - 22 - 2275 5556 / 6184 0001

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
108-10-1	4-Methyl-2-pentanone	99.5%	203-550-1

Hazard Symbols:	XN F
	
Risk Phrases:	11 20 36/37 66

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Highly flammable. Irritating to eyes and respiratory system. Harmful by inhalation. Repeated exposure may cause skin dryness or cracking.

Potential Health Effects

Eye:	Causes eye irritation.
Skin:	May cause skin irritation.
Ingestion:	May cause irritation of the digestive tract.
Inhalation:	Harmful if inhaled. Causes respiratory tract irritation.
Chronic:	

Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	Get medical aid. Wash mouth out with water.
Inhalation:	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:	

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Flammable liquid and vapor. May form explosive peroxides.
Extinguishing Media:	In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

Section 7 - Handling and Storage

Handling:	Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.
Storage:	Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. May form explosive peroxides on prolonged storage.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Use adequate ventilation to keep airborne concentrations low.
Exposure Limits
CAS# 108-10-1:
United Kingdom, WEL - TWA: 50 ppm TWA; 208 mg/m3 TWA United Kingdom, WEL - STEL: 100 ppm STEL; 416 mg/m3 STEL
United States OSHA: 100 ppm TWA; 410 mg/m3 TWA
Belgium - TWA: 20 ppm VLE; 83 mg/m3 VLE Belgium - STEL: 50 ppm VLE; 208 mg/m3 VLE
France - VME: 20 ppm VME; 83 mg/m3 VME France - VLE: 50 ppm VLE; 208 mg/m3 VLE
Germany: 20 ppm TWA; 83 mg/m3 TWA Germany: skin notation
Japan: 50 ppm OEL; 200 mg/m3 OEL
Malaysia: 50 ppm TWA; 205 mg/m3 TWA
Netherlands: 50 ppm STEL; 208 mg/m3 STEL Netherlands: 25 ppm MAC; 104 mg/m3 MAC
Spain: 20 ppm VLA-ED; 83 mg/m3 VLA-ED Spain: 50 ppm VLA-EC; 208 mg/m3 VLA-EC

Personal Protective Equipment	
Eyes:	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to minimize contact with skin.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	APHA: 15 max
Odor:	camphor - sweetish odor
pH:	Not available
Vapor Pressure:	15.7 mm Hg @ 20 deg C
Viscosity:	Not available
Boiling Point:	116 deg C @ 760.00mm Hg (243.32°F)
Freezing/Melting Point:	-84 deg C (-119.20°F)
Autoignition Temperature:	460 deg C (860.00 deg F)
Flash Point:	14 deg C (57.20 deg F)
Explosion Limits: Lower:	1.40 vol %
Explosion Limits: Upper:	7.50 vol %
Decomposition Temperature:	Not available
Solubility in water:	Not available.
Specific Gravity/Density:	.8010g/cm3
Molecular Formula:	C6H12O
Molecular Weight:	100.16

Section 10 - Stability and Reactivity

Chemical Stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid:	Incompatible materials, ignition sources, exposure to air, excess heat.
Incompatibilities with Other Materials	Oxidizing agents, reducing agents, strong bases, potassium tert-butoxide.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 108-10-1: SA9275000
LD50/LC50:	RTECS: **CAS# 108-10-1:** Draize test, rabbit, eye: 40 mg Severe; Draize test, rabbit, eye: 100 uL/24H Moderate; Draize test, rabbit, skin: 500 mg/24H Mild; Inhalation, mouse: LC50 = 23300 mg/m3; Inhalation, mouse: LC50 = 23300 mg/m3; Inhalation, rat: LC50 = 100 gm/m3; Oral, mouse: LD50 = 1900 mg/kg; Oral, mouse: LD50 = 2850 mg/kg; Oral, rat: LD50 = 2080 mg/kg; Oral, rat: LD50 = 4600 mg/kg;
Carcinogenicity:	4-Methyl-2-pentanone - Not listed as a carcinogen by ACGIH, IARC, NTP,

	or CA Prop 65.
Other:	See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity:	Not available
Other:	On soil, substance volatilizes and biodegrades. In water, substance volatilizes and biodegrades. Redwinged blackbird, orl LD50=100mg/kg. Goldfish LC50=460mg/L/24H.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	METHYL ISOBUTYL KETONE	METHYL ISOBUTYL KETONE	METHYL ISOBUTYL KETONE
Hazard Class:	3	3	3
UN Number:	1245	1245	1245
Packing Group:	II	II	II

USA RQ: CAS# 108-10-1: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN F

Risk Phrases:

- R 11 Highly flammable.
- R 20 Harmful by inhalation.
- R 36/37 Irritating to eyes and respiratory system.
- R 66 Repeated exposure may cause skin dryness or cracking.

Safety Phrases:

- S 9 Keep container in a well-ventilated place.
- S 16 Keep away from sources of ignition - No smoking.
- S 29 Do not empty into drains.

WGK (Water Danger/Protection)

- CAS# 108-10-1: 1

Canada

- CAS# 108-10-1 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 108-10-1 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date:	7/16/1996
Revision #0 Date	Original.

MSDS Creation Date:	July 22, 2015
Revision #0 Date	

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