Right to Know Hazardous Substance Fact Sheet

Emergency Responders Quick Reference

Common Name: **METHYL ISOAMYL KETONE**

Synonyms: Isopentyl Methyl Ketone; MIAK; 5-Methylhexan-2-one
CAS No: 110-12-3
Molecular Formula: $C_7H_{14}O$
RTK Substance No: 1267
Description: Clear, colorless liquid with a pleasant odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
1 - Health **3 - Fire** **0 - Reactivity** **DOT#:** UN 2302 **ERG Guide #:** 127 **Hazard Class:** 3 (Flammable)	FLAMMABLE LIQUID Use dry chemical, CO_2 or alcohol-resistant foam extinguishing agents, as water may not be effective in fighting fires. POISONOUS GASES ARE PRODUCED IN FIRE. CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Vapors may travel to a source of ignition and flash back. Vapor is heavier than air and may travel a distance to cause a fire or explosion far from the source.	**Methyl Isoamyl Ketone** reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); AMINES; ALDEHYDES; and ISOCYANATES to cause fires and explosions. **Methyl Isoamyl Ketone** is not compatible with REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); and NITRIDES.

SPILL/LEAKS

Isolation Distance:

Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and place into sealed containers for disposal.

Use only non-sparking tools and equipment, especially when opening and closing containers of **Methyl Isoamyl Ketone**.

Keep **Methyl Isoamyl Ketone** out of confined spaces, such as sewers, because of the possibility of an explosion.

DO NOT wash into sewer.

PHYSICAL PROPERTIES

Odor Threshold:	0.012 ppm
Flash Point:	97°F (36°C)
LEL:	1%
UEL:	8.2%
Auto Ignition Temp:	375°F (191°C)
Vapor Density:	3.9 (air = 1)
Vapor Pressure:	5.8 mm Hg at 77°F (25°C)
Specific Gravity:	0.8 (water = 1)
Water Solubility:	Very slightly soluble
Boiling Point:	294°F (146°C)
Freezing Point:	-101°F (-74°C)
Ionization Potential:	9.28 eV
Molecular Weight:	114.2

EXPOSURE LIMITS

OSHA: 100 ppm, 8-hr TWA
NIOSH: 50 ppm, 10-hr TWA
ACGIH: 50 ppm, 8-hr TWA

The Protective Action Criteria values are:

PAC-1 = 150 ppm PAC-3 = 1,500 ppm
PAC-2 = 1,500 ppm

PROTECTIVE EQUIPMENT

Gloves: Butyl (1 to 4-hrs breakthrough); Silver Shield®/4H® and Barrier® (>8-hr breakthrough)

Coveralls: Tychem® BR, LV, Responder®, and TK; and Trellchem® HPS and VPS (>8-hr breakthrough for *Ketones*)

Respirator: >50 ppm - Full facepiece APR with *Organic vapor* cartridges
>150 ppm - SCBA

HEALTH EFFECTS

Eyes: Irritation

Skin: Irritation

Inhalation: Nose and throat irritation with coughing and wheezing
Headache, dizziness, lightheadedness, and passing out

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.