Methyl Isobutyl Ketone
Product Stewardship Summary
(CAS number 108-10-1)

Chemical Formula for Methyl Isobutyl Ketone
C₆H₁₂O

What is Methyl Isobutyl Ketone?
Methyl Isobutyl Ketone (MIBK) is a colourless liquid solvent with a characteristic mild odour. It is produced from acetone.

How is Methyl Isobutyl Ketone Used?
Methyl Isobutyl Ketone is used in paintings and coatings, cleaning products, industrial processes and adhesives.

Health, Safety and Environmental Considerations
Methyl Isobutyl Ketone (MIBK) is highly flammable in its vapor and liquid forms and flammable atmospheres can be created at temperatures as low as 57°F/14°C. This means that any environment where MIBK is being used needs to be well ventilated. As the vapour is heavier than air, it may spread along the ground, so care needs to be taken that the vapour is not ignited by a distant source.

MIBK is harmful by inhalation and short-term, high-level exposure to MIBK vapours can result in eye and respiratory tract irritation. Inhalation of very high concentrations of MIBK (short-term), well in excess of the occupational exposure limits, can result in unconsciousness and death. The effects of swallowing large quantities of MIBK are similar to the effects of excessive alcohol intake. This can include narcosis (numbness and stupor), coma or death.

If the skin repeatedly comes into contact with MIBK, it can result in skin dryness or cracking. Exposure may enhance the toxicity of other materials.

The American Occupational Safety and Health Administration (OSHA) has assigned an eight-hour Permissible Exposure Limit for occupational exposure limit of 100 parts per million (PPM) (410 mg/m³) for general, construction and shipyard employment industries.

MIBK has low toxicity to aquatic organisms. It is biodegradable and has a low potential to bioaccumulate. If released to soil, MIBK will both evaporate and leach into the ground. It is expected to have high mobility in soil, which may contaminate ground water.
Storing and Transporting Methyl Isobutyl Ketone

Methyl Isobutyl Ketone is transported by tank truck, rail car and vessel. During transport, product is stored in bulk containers that meet local and international regulated specifications.

Risk Characterization Summary

Risks associated with exposure to this product have been evaluated for the following “chain-of-commerce” activities: manufacture, storage, product transfer, transportation, and customers/markets. It is manufactured, stored and transported to customers in closed systems. Depending on the customer, end uses may vary from use as an intermediate for the manufacture other chemicals, commercial products, or certain formulated consumer products. Proper equipment design and handling procedures maintain low risk from exposure where used as an intermediate. Exposures may be higher in commercial and consumer applications. To minimize risk, additional controls, such as, special handling procedures and protective packaging are implemented.

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the chemical’s applicable Safety Data Sheet, which should be consulted before use of the chemical. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.

Disclaimer

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