



SAFETY DATA SHEET

Methyl Isobutyl Ketone

Revision Date: 12/23/2022

This SDS is valid for all grades

SECTION 1. IDENTIFICATION

Product name : Methyl Isobutyl Ketone

Synonyms : 4-methyl-2-pentanone, Hexanone, Hexone, MIBK

CAS-No. : 108-10-1

Manufacturer or supplier's details

Company : **Alliance Chemical**
204 S. Edmond St.
Taylor, TX 76574

Customer Service : 512-365-6838

In Case of Emergency Call: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

Recommended use of the chemical and restrictions on use

Recommended use : Use only in industrial processes.

Restrictions on use : This product must not be used in applications other than the above without first seeking the advice of the supplier.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 2

Eye irritation : Category 2A


Acute toxicity (Inhalation) : Category 4

Specific target organ toxicity : Category 3 (Respiratory Tract)
- single exposure

GHS label elements

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Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	PHYSICAL HAZARDS: H225 Highly flammable liquid and vapour. HEALTH HAZARDS: H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. ENVIRONMENTAL HAZARDS: Not classified as an environmental hazard under GHS criteria.
Precautionary statements	:	Prevention: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P370 + P378 In case of fire: Use appropriate media to extinguish. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention. Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P235 Keep cool. P405 Store locked up. Disposal: P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regula-

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tions.

Other hazards which do not result in classification

Vapours are heavier than air. Vapours may travel across the ground and reach remote ignition sources causing a flashback fire danger.

Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.

If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.

Exposure may enhance the toxicity of other materials.

See Chapter 11 for details.

Vapours may be irritating to the eye.

Repeated exposure may cause skin dryness or cracking.

The classification of this material is based on OSHA HCS 2012 criteria.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Chemical nature : Solvent

Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (% w/w)
Methyl isobutyl ketone	4-methylpentan-2-one	108-10-1	<= 100

SECTION 4. FIRST-AID MEASURES

General advice : DO NOT DELAY.
Keep victim calm. Obtain medical treatment immediately.

If inhaled : Call emergency number for your location / facility.
Remove to fresh air. Do not attempt to rescue the victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or Cardio-Pulmonary Resuscitation as required and transport to the nearest medical facility.

In case of skin contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
If persistent irritation occurs, obtain medical attention.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Transport to the nearest medical facility for additional treatment.

If swallowed : If swallowed, do not induce vomiting: transport to nearest

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	medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Rinse mouth.
Most important symptoms and effects, both acute and delayed	: Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.
Protection of first-aiders	: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Indication of any immediate medical attention and special treatment needed	: Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	: None
Specific hazards during fire-fighting	: The vapour is heavier than air, spreads along the ground and distant ignition is possible. Carbon monoxide may be evolved if incomplete combustion occurs.
Specific extinguishing methods	: Standard procedure for chemical fires.
Further information	: Clear fire area of all non-emergency personnel. Keep adjacent containers cool by spraying with water.
Special protective equipment for firefighters	: Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Observe the relevant local and international regulations Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. The vapour is heavier than air, spreads along the ground and
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distant ignition is possible.
Vapour may form an explosive mixture with air.
Avoid contact with skin, eyes and clothing.
Isolate hazard area and deny entry to unnecessary or unprotected personnel.
Stay upwind and keep out of low areas.

Environmental precautions : Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. Monitor area with combustible gas indicator.

Methods and materials for containment and cleaning up : For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

Additional advice : For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet.
For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Chapter 15) to the National Response Center at (800) 424-8802.

SECTION 7. HANDLING AND STORAGE

Technical measures : Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

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	Ensure that all local regulations regarding handling and storage facilities are followed.
Advice on safe handling	: Avoid contact with skin, eyes and clothing. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Bulk storage tanks should be diked (bunded). Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or handling operations.
Avoidance of contact	: Strong oxidising agents.
Product Transfer	: Refer to guidance under Handling section.
Conditions for safe storage	: The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.
Packaging material	: Suitable material: For containers, or container linings use mild steel, stainless steel. Unsuitable material: Natural, butyl, neoprene or nitrile rubbers.
Container Advice	: Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.
Specific use(s)	: Not applicable

Ensure that all local regulations regarding handling and storage facilities are followed.
See additional references that provide safe handling practices: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity).
IEC/TS 60079-32-1: Electrostatic hazards, guidance

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SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Methyl isobutyl ketone	108-10-1	TWA	20 ppm	ACGIH
Methyl isobutyl ketone		STEL	75 ppm	ACGIH
Methyl isobutyl ketone		TWA	100 ppm 410 mg/m ³	OSHA Z-1

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Methyl isobutyl ketone	108-10-1	methyl isobutyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	1 mg/l	ACGIH BEI

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>

L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

Engineering measures : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
 Use sealed systems as far as possible.
 Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.
 Local exhaust ventilation is recommended.
 Firewater monitors and deluge systems are recommended.
 Eye washes and showers for emergency use.

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Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

Respiratory protection : If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. If air-filtering respirators are suitable for conditions of use: Select a filter suitable for organic gases and vapours [Type A boiling point >65°C (149°F)].

Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Hand protection
Remarks

: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Butyl rubber. Nitrile rubber. Incidental contact/Splash protection: PVC or neoprene rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable

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gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

- Eye protection : Wear goggles for use against liquids and gas.
Wear full face shield if splashes are likely to occur.
- Skin and body protection : Wear antistatic and flame retardant clothing if a local risk assessment deems it so.
Skin protection is not required under normal conditions of use.
For prolonged or repeated exposures use impervious clothing over parts of the body subject to exposure.
If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant Standard, and provide employee skin care programmes.
- Protective measures : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Thermal hazards : Not applicable
- Hygiene measures : Wash hands before eating, drinking, smoking and using the toilet.
Launder contaminated clothing before re-use.

Environmental exposure controls

- General advice : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.
Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.
Information on accidental release measures are to be found in section 6.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	:	Liquid.
Colour	:	clear
Odour	:	characteristic
Odour Threshold	:	< 100 ppm
pH	:	Not applicable
Melting point/freezing point	:	-85 °C / -121 °F
Boiling point/boiling range	:	114 - 117 °C / 237 - 243 °F
Flash point	:	14 °C / 57 °F
		Method: Abel
Evaporation rate	:	1.6
		Method: ASTM D 3539, nBuAc=1
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / upper flammability limit	:	upper flammability limit 8 %(V)
Lower explosion limit / Lower flammability limit	:	Lower flammability limit 1.3 %(V)
Vapour pressure	:	1.900 Pa (20 °C / 68 °F)
Relative vapour density	:	3.5 (20 °C / 68 °F)
Relative density	:	0.799 - 0.802 (20 °C / 68 °F)
Density	:	799 - 802 kg/m ³ (20 °C / 68 °F)
		Method: ASTM D4052
Solubility(ies)		
Water solubility	:	20 g/l (20 °C / 68 °F)
Partition coefficient: n-octanol/water	:	log Pow: 1.31
Auto-ignition temperature	:	448 °C / 838 °F
Decomposition temperature	:	Not applicable
Viscosity		
Viscosity, dynamic	:	Data not available

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Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not applicable
Oxidizing properties	:	Data not available
Surface tension	:	Data not available
Conductivity	:	Electrical conductivity: > 10,000 pS/m
		A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumulator.
Molecular weight	:	Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	:	No hazardous reaction is expected when handled and stored according to provisions
Possibility of hazardous reactions	:	Reacts with strong oxidising agents.
Conditions to avoid	:	Avoid heat, sparks, open flames and other ignition sources. Prevent vapour accumulation. In certain circumstances product can ignite due to static electricity.
Incompatible materials	:	Strong oxidising agents.
Hazardous decomposition products	:	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on product testing.

Information on likely routes of exposure

Inhalation is the primary route of exposure although absorption may occur through skin contact or following accidental ingestion.

Acute toxicity

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Product:

Acute oral toxicity : LD50 (Rat): > 2000 - <= 5000 mg/kg
Remarks: May be harmful if swallowed.

Acute inhalation toxicity : LC50 : >10 - <= 20 mg/l
Remarks: Harmful if inhaled.
Vapours may cause drowsiness and dizziness.

Acute dermal toxicity : LD50 (Rabbit): > 5000 mg/kg
Remarks: Low toxicity:

Skin corrosion/irritation

Product:

Remarks: Not irritating to skin., Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Causes serious eye irritation.

Respiratory or skin sensitisation

Product:

Remarks: Not a sensitiser.
Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

: Remarks: Not mutagenic.

Carcinogenicity

Product:

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

IARC

Group 2B: Possibly carcinogenic to humans

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OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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Reproductive toxicity**Product:**

: Remarks: Does not impair fertility., Not a developmental toxicant.

STOT - single exposure**Product:**

Remarks: May cause respiratory irritation.

STOT - repeated exposure**Product:**

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to humans

Aspiration toxicity**Product:**

Not an aspiration hazard.

Further information**Product:**

Remarks: Exposure may enhance the toxicity of other materials.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment : Information given is based on product testing.

Ecotoxicity**Product:**Toxicity to fish (Acute toxicity) : Remarks: Practically non toxic:
LL/EL/IL50 > 100 mg/lToxicity to daphnia and other aquatic invertebrates (Acute toxicity) : Remarks: Practically non toxic:
LL/EL/IL50 > 100 mg/lToxicity to algae (Acute toxicity) : Remarks: Practically non toxic:
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

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icity)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: NOEC/NOEL > 10 - <=100 mg/l

Toxicity to microorganisms (Acute toxicity) : Remarks: Practically non toxic: LL/EL/IL50 > 100 mg/l

Persistence and degradability

Product:

Biodegradability : Remarks: Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not have the potential to bioaccumulate significantly.

Mobility in soil

Product:

Mobility : Remarks: Dissolves in water. If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

Other adverse effects

Product:

Additional ecological information : Does not have ozone depletion potential.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Recover or recycle if possible.
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Do not dispose into the environment, in drains or in water courses
Waste product should not be allowed to contaminate soil or water.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

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Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging : Drain container thoroughly.
After draining, vent in a safe place away from sparks and fire.
Residues may cause an explosion hazard.
Do not, puncture, cut, or weld uncleaned drums.
Send to drum recoverer or metal reclaimer.

SECTION 14. TRANSPORT INFORMATION**National Regulations****US Department of Transportation Classification (49 CFR Parts 171-180)**

UN/ID/NA number : UN 1245
Proper shipping name : METHYL ISOBUTYL KETONE
Class : 3
Packing group : II
Labels : 3
Reportable quantity : Methyl Isobutyl Ketone
(5,000 lb)
ERG Code : 127
Marine pollutant : no

International Regulations**IATA-DGR**

UN/ID No. : UN 1245
Proper shipping name : METHYL ISOBUTYL KETONE
Class : 3
Packing group : II
Labels : 3

IMDG-Code

UN number : UN 1245
Proper shipping name : METHYL ISOBUTYL KETONE
Class : 3
Packing group : II
Labels : 3
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Z
Ship type : 3
Product name : Methyl Isobutyl Ketone

Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

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Additional Information : This product may be transported under nitrogen blanketing. Nitrogen is an odourless and invisible gas. Exposure to nitrogen may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space entry.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methyl isobutyl ketone	108-10-1	5000	5000
Methyl isobutyl ketone	108-10-1	100	100 (F003)

*: The components with RQs are given for information.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
 Acute toxicity (any route of exposure)
 Serious eye damage or eye irritation
 Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Methyl isobutyl ketone 108-10-1 >= 90 - <= 100 %

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Pennsylvania Right To Know

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California Prop. 65

WARNING: This product can expose you to chemicals including Methyl isobutyl ketone, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

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Other regulations:

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The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

The components of this product are reported in the following inventories:

AICS	: Listed
DSL	: Listed
IECSC	: Listed
ENCS	: Listed
KECI	: Listed
PICCS	: Listed
EINECS	: Listed
TSCA	: Listed
TCSI	: Listed

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reactivity) 2, 3, 0

Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	: ACGIH - Biological Exposure Indices (BEI)
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / STEL	: Short-term exposure limit
OSHA Z-1 / TWA	: 8-hour time weighted average
Abbreviations and Acronyms	: The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

AICS = Australian Inventory of Chemical Substances

ASTM = American Society for Testing and Materials

BEL = Biological exposure limits

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

CAS = Chemical Abstracts Service

CEFIC = European Chemical Industry Council

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CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut für Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHA = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Observed Effect Level
OE_HP V = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of Chemicals
RID = Regulations Relating to International Carriage of Dangerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

A vertical bar (|) in the left margin indicates an amendment from the previous version.



SAFETY DATA SHEET

Methyl Isobutyl Ketone

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