



# SAFETY DATA SHEET METHYL ISOBUTYL CARBINOL REVISION 3, DATE 21 OCT 21

## 1. IDENTIFICATION

Product Name	Methyl Isobutyl Carbinol
Other Names	2-Pentanol, 4-Methyl-
Uses	Chemical additive. Chemical intermediate. Frothing agent.
Chemical Family	No Data Available
Chemical Formula	$(CH_3)_2CHCH_2CH(OH)CH_3$
Chemical Name	Methyl Isobutyl Carbinol
Product Description	No Data Available

### Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

### Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

## 2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



## Globally Harmonised System

**Hazard Classification** Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

**Hazard Categories** Flammable Liquids - Category 3  
Acute Toxicity (Inhalation) - Category 4  
Skin Corrosion/Irritation - Category 2  
Serious Eye Damage/Irritation - Category 2A  
Specific Target Organ Toxicity (Single Exposure) - Category 3

**Pictograms**

**Signal Word** Warning

**Hazard Statements**

<b>H226</b>	Flammable liquid and vapour.
<b>H315</b>	Causes skin irritation.
<b>H319</b>	Causes serious eye irritation.
<b>H332</b>	Harmful if inhaled.
<b>H335</b>	May cause respiratory irritation.

<b>Precautionary Statements</b>	Prevention	<b>P210</b>	Keep away from heat/sparks/open flames/hot surfaces. No smoking.	
		<b>P235</b>	Keep cool.	
		<b>P240</b>	Ground and bond container and receiving equipment.	
		<b>P241</b>	Use explosion-proof electrical/ventilating/lighting and all other equipment.	
		<b>P242</b>	Use non-sparking tools.	
		<b>P243</b>	Take action to prevent static discharges.	
		<b>P261</b>	Avoid breathing fumes/gas/mist/vapours/spray.	
		<b>P264</b>	Wash hands and eyes thoroughly after handling.	
		<b>P271</b>	Use only outdoors or in a well-ventilated area.	
		<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.	
	Response	<b>P302 + P352</b>	IF ON SKIN: Wash with plenty of water.	
		<b>P304 + P340</b>	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.	
		<b>P305 + P351 + P338</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
		<b>P332 + P313</b>	If skin irritation occurs: Get medical advice.	
		<b>P337 + P313</b>	If eye irritation persists: Get medical advice.	
		<b>P370 + P378</b>	In case of fire: Use dry chemical, alcohol resistant foam or dry sand for extinction.	
		<b>P362 + P364</b>	Take off contaminated clothing and wash it before reuse.	
		Storage	<b>P403 + P233</b>	Store in a well-ventilated place. Keep container tightly closed.
			<b>P405</b>	Store locked up.
		Disposal	<b>P501</b>	Dispose of contents/container in accordance with local / regional / national / international regulations.

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## Dangerous Goods Classification

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

## Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

## HSNO Classifications

Health Hazards **6.1C**

Substances that are acutely toxic- Toxic

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Methyl isobutyl carbinol	C6H14O4	108-11-2	>=95 - <99 %
Methyl isobutyl ketone	C6H12O	108-10-1	>=1 - <5 %

## 4. FIRST AID MEASURES

## Description of necessary measures according to routes of exposure

## Swallowed

IF SWALLOWED: Rinse mouth with water. Do not induce vomiting without medical advice. Do not give anything to drink. Keep at rest. Call a Poison Centre or doctor/physician for advice.

## Eye

IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.

## Skin

IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes (Place affected clothing in a sealed bag for subsequent decontamination). Immediately wash skin and hair with plenty of soap and running water for at least 15 minutes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse. \*In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.

## Inhaled

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

## Advice to Doctor

Treat symptomatically. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

**Medical Conditions Aggravated by Exposure** No information available.

## 5. FIRE FIGHTING MEASURES

## General Measures

Fight fire remotely due to the risk of explosion. Move containers from fire area if you can do it without risk. Suppress (knock down) gases/vapours/mists with a water spray jet. Cool containers with water spray until well after fire is out. Never approach containers which have been exposed to fire, without cooling them sufficiently. Ensure that there is NO direct contact between the water and the product.

## Flammability Conditions

FLAMMABLE LIQUID & VAPOUR: Will be easily ignited by heat, sparks or flames.

## Extinguishing Media

Use dry chemical, Carbon dioxide (CO2), alcohol-resistant foam (AR-AFFF) or water spray for extinction - Do not use straight streams. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be

used.

\*Use of water spray when fighting fire may be inefficient. If this product is on fire, do not use water to extinguish.

**Fire and Explosion Hazard**

Risk of violent reaction or explosion! Vapours may form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas. Vapour explosion hazard indoors, outdoors or in sewers. Containers may explode when heated. Many liquids are lighter than water.

**Hazardous Products of Combustion**

Fire will produce irritating, corrosive and/or toxic gases, including Carbon oxides (CO, CO<sub>2</sub>).

**Special Fire Fighting Instructions**

Contain runoff from fire control or dilution water - Runoff may pollute waterways. Runoff to sewer may create fire or explosion hazard. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Personal Protective Equipment**

Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

**Flash Point**

54.5 °C [Closed cup]

**Lower Explosion Limit**

1.0 %

**Upper Explosion Limit**

5.50 %

**Auto Ignition Temperature**

No Data Available

**Hazchem Code**

•3Y

**6. ACCIDENTAL RELEASE MEASURES****General Response Procedure**

Ensure adequate ventilation - Ventilate closed spaces before entering. ELIMINATE all ignition sources - All equipment used when handling the product must be grounded. Do not touch or walk through spilled material - Material can create slippery conditions! Avoid breathing vapours and contact with eyes, skin and clothing.

\*Only qualified personnel equipped with suitable protective equipment may intervene.

**Clean Up Procedures**

Absorb or cover with dry earth, sand or other non-combustible material and transfer to suitable, closed containers for disposal (see SECTION 13). Use clean, non-sparking tools to collect absorbed material.

\*Never return spills in original containers for re-use.

**Containment**

Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike far ahead of large spill for later disposal.

\*A vapour-suppressing foam may be used to reduce vapours. Water spray may reduce vapour, but may not prevent ignition in closed spaces.

**Decontamination**

Clean contaminated surface thoroughly. Wash with plenty of water and detergent. Recover the cleaning water for subsequent disposal.

\*Decontaminate tools, equipment and personal protective equipment in a segregated area.

**Environmental Precautionary Measures**

Spillages and decontamination runoff should be prevented from entering drains and watercourses. Local authorities should be advised if significant spillages cannot be contained.

**Evacuation Criteria**

Immediately isolate spill or leak area and evacuate personnel to safe areas. Keep unauthorized personnel away. Stay upwind and/or uphill.

**Personal Precautionary Measures**

Wear chemical resistant personal protective equipment (see SECTION 8).

\*In the case of vapour, dust or aerosol formation, use a respirator with an approved filter.

**7. HANDLING AND STORAGE****Handling**

Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation (Vapour extraction at the source). Do not use in areas without adequate ventilation. Do NOT handle in a confined space. Extracted air must not be allowed to return to the workplace. Handle in accordance with good industrial hygiene and safety practice. Avoid splashes. Avoid formation of aerosols. Avoid breathing mist/vapours/aerosols and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). FLAMMABLE LIQUID & VAPOUR: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Ground and bond container and receiving equipment. Ensure all equipment is electrically grounded before beginning transfer operations. Use explosion-proof

equipment and non-sparking tools. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Take action to prevent static discharges.

\*Electrical installations/working materials must comply with the technological safety standards.

**Storage**

Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up or in an area accessible only to qualified or authorised persons. Keep in a bunded area. The floor of the storage area should be impermeable and designed to form a water-tight basin.

\*Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

**Container**

Keep only in original container or suitable material, i.e. Stainless steel, Carbon steel, Electrical conducting materials. Store contents under inert gas - Keep under nitrogen. Vapour space above stored liquid may be flammable/explosive unless blanketed with inert gas.

\*Unsuitable material: Plastic materials, Electrical insulating materials.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****General**

COMPONENT: Methyl isobutyl carbinol (CAS No. 108-11-2):

- Safe Work Australia Exposure Standard: TWA = 25 ppm (104 mg/m<sup>3</sup>); STEL = 40 ppm (167 mg/m<sup>3</sup>); Absorption through the skin may be a significant source of exposure (Sk).

- COMPONENT: Methyl isobutyl ketone (CAS No. 108-10-1):

- Safe Work Australia Exposure Standard: TWA = 50 ppm (205 mg/m<sup>3</sup>); STEL = 75 ppm (307 mg/m<sup>3</sup>).

**Exposure Limits**

No Data Available

**Biological Limits**

No information available.

**Engineering Measures**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

**Personal Protection Equipment**

- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Use a respirator with an approved filter if a risk assessment indicates this is necessary (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Tightly fitting safety goggles; Face-shield (refer to AS/NZS 1337.1).

- Hand protection: Wear protective gloves. Recommended: Where there is a risk of contact with hands, use appropriate gloves (refer to AS/NZS 2161.1). Gloves must be inspected prior to use. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Full protective suit; Footwear protecting against chemicals. Wear fire resistant and antistatic coveralls; Workers should wear antistatic footwear. Choose body protection according to the amount and concentration of the hazardous substance(s) at the work place.

**Special Hazards Precautions**

The product must only be handled by specifically trained employees.

**Work Hygienic Practices**

Do not eat, drink or smoke while handling this product. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and immediately after handling the product. Use clean, well-maintained personal protection equipment. Regular cleaning of equipment, work area and clothing. Contaminated work clothing should not be allowed out of the workplace.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Physical State**

Liquid

**Appearance**

Liquid

**Odour**

Aromatic

\*Do not attempt to smell the product as it is hazardous!

**Colour**

Colourless

**pH**

No Data Available

<b>Vapour Pressure</b>	4.95 hPa (@ 20 °C)
<b>Relative Vapour Density</b>	3.5 Air = 1
<b>Boiling Point</b>	131.7 °C
<b>Melting Point</b>	No Data Available
<b>Freezing Point</b>	-90 °C
<b>Solubility</b>	Partly miscible with water (7 g/l) - Miscible with most organic solvents
<b>Specific Gravity</b>	0.805 - 0.809
<b>Flash Point</b>	54.5 °C [Closed cup]
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	0.2188 (Butyl acetate = 1)
<b>Bulk Density</b>	No Data Available
<b>Corrosion Rate</b>	No Data Available
<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	0.807 g/cm <sup>3</sup>
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	102.17 g/mol
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	Pow: 1.43
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	5.14 mPa.s (@ 20 °C)
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	Henry's Constant: 4.508962 Pa.m <sup>3</sup> /mol (25 °C)
<b>Potential for Dust Explosion</b>	Not applicable.
<b>Fast or Intensely Burning Characteristics</b>	Risk of violent reaction or explosion!
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No information available.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	Use of water spray when fighting fire may be inefficient.
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	FLAMMABLE LIQUID & VAPOUR: Will be easily ignited by heat, sparks or flames.
<b>Reactions That Release Gases or Vapours</b>	On combustion or on thermal decomposition (pyrolysis), releases Carbon oxides (CO + CO <sub>2</sub> ).
<b>Release of Invisible Flammable Vapours and Gases</b>	Vapours may form explosive mixtures with air.

## 10. STABILITY AND REACTIVITY

<b>General Information</b>	Explosion possible with gas/vapour and air mixtures above flash point.
<b>Chemical Stability</b>	Stable at normal ambient temperature and pressure. Stable under recommended storage conditions.
<b>Conditions to Avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Prevent the build-up of electrostatic charge.
<b>Materials to Avoid</b>	Incompatible/reactive with acids, strong oxidising agents.

**Hazardous Decomposition Products**

On combustion or on thermal decomposition (pyrolysis), releases Carbon oxides (CO + CO<sub>2</sub>).

**Hazardous Polymerisation**

No information available.

**11. TOXICOLOGICAL INFORMATION****General Information**

- Acute toxicity: May be harmful if swallowed. Harmful if inhaled. Dermal absorption possible.
- Skin corrosion/irritation: Causes skin irritation.
- Eye damage/irritation: Causes serious eye irritation.
- Respiratory/skin sensitisation: COMPONENT: Methyl isobutyl carbinol: Does not cause skin sensitisation (GPMT) [OECD Test Guideline 406]. COMPONENT: Methyl isobutyl ketone: Does not cause skin sensitisation (Guinea pig) [OECD Test Guideline 406].
- Germ cell mutagenicity: COMPONENT: Methyl isobutyl ketone: Tests on bacterial or mammalian cell cultures did not show mutagenic effects; In vivo tests did not show mutagenic effects.
- Carcinogenicity: COMPONENT: Methyl isobutyl ketone: This substance has been reported to cause tumours in certain animal species. Not classified as a carcinogen according to GHS criteria: the mechanism or mode of action of tumour formation is considered not relevant for humans.
- Reproductive toxicity: COMPONENT: Methyl isobutyl ketone: Did not show teratogenic effects in animal experiments; Animal testing did not show any effects on fertility.
- STOT (single exposure): May cause respiratory irritation. Vapour during processing may be irritating to the respiratory tract and the eyes. COMPONENT: Methyl isobutyl ketone: Target Organs - Central nervous system (Symptoms: Headache, Nausea, Dizziness).
- STOT (repeated exposure): COMPONENT: Methyl isobutyl carbinol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria. COMPONENT: Methyl isobutyl ketone: Effects on the kidney not relevant for humans. Not considered to cause serious damage to health on repeated exposure (by analogy).
- Aspiration toxicity: COMPONENT: Methyl isobutyl ketone: May be harmful if swallowed and enters airways.

**Acute****Ingestion**

Acute toxicity (Oral):  
 COMPONENT: Methyl isobutyl carbinol:  
 - LD50, Rat (Male & female): 2,590 mg/kg [OECD Test Guideline 401].  
 COMPONENT: Methyl isobutyl ketone:  
 - LD50, Rat (Male & female): 2,080 mg/kg [OECD Test Guideline 401].

**Other**

Acute toxicity (Dermal):  
 COMPONENT: Methyl isobutyl carbinol:  
 - LD50, Rat (Male & female): 2,870 mg/kg [OECD Test Guideline 402].  
 COMPONENT: Methyl isobutyl ketone:  
 - LD50, Rat (Male & female): ≥2,000 mg/kg [OECD Test Guideline 402].  
 \*No mortality observed at this dose.

**Inhalation**

Acute toxicity (Inhalation):  
 COMPONENT: Methyl isobutyl carbinol:  
 - LC50, Rat (Male & female): >16 mg/l (4 h) vapour [OECD Test Guideline 403].  
 COMPONENT: Methyl isobutyl ketone:  
 - LC50, Rat (Male): 2,000 - 4,000 ppm (4 h) vapour [OECD Test Guideline 403].

**Carcinogen Category**

None

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

COMPONENT: Methyl isobutyl carbinol:  
 - Short-term (acute) aquatic hazard: Not harmful to aquatic life (LC/LL50, EC/EL50 > 100 mg/L)  
 - Long-term (chronic) aquatic hazard: No adverse chronic effect observed up to and including the threshold of 1 mg/L.  
 COMPONENT: Methyl isobutyl ketone:  
 - Short-term (acute) aquatic hazard: This product has no known ecotoxicological effects.  
 - Long-term (chronic) aquatic hazard: Does not have any known long-term adverse effects on the aquatic organisms tested.  
 COMPONENT: Methyl isobutyl carbinol:

<b>Persistence/Degradability</b>	<ul style="list-style-type: none"><li>- The product is considered to be rapidly degradable in the environment.</li><li>- The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability (85 %, 28 days) [OECD Test Guideline 301 F].</li></ul> COMPONENT: Methyl isobutyl ketone: <ul style="list-style-type: none"><li>- The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability (83 %, 28 days) [OECD Test Guideline 301 F].</li></ul>
<b>Mobility</b>	No information available.
<b>Environmental Fate</b>	Harmful to aquatic life. The product should not be allowed to enter drains, water courses or the soil.
<b>Bioaccumulation Potential</b>	COMPONENT: Methyl isobutyl carbinol: <ul style="list-style-type: none"><li>- Not potentially bioaccumulable</li></ul> COMPONENT: Methyl isobutyl ketone: <ul style="list-style-type: none"><li>- Not potentially bioaccumulable</li></ul>
<b>Environmental Impact</b>	No Data Available

### 13. DISPOSAL CONSIDERATIONS

<b>General Information</b>	Dispose of contents/container to an approved waste disposal plant and in accordance with local and national regulations. Dispose of as hazardous waste. Do not discharge directly into the environment. Do not dispose of with domestic refuse. *Where possible recycling is preferred to disposal or incineration. The recycled material must be completely dry and free of pollutants.
<b>Special Precautions for Land Fill</b>	Advice on cleaning and disposal of packaging: Empty remaining contents. Clean using steam and/or with the help of detergent. Avoid using any solvent. Monitor the residual vapours. Dispose of rinse water in accordance with local and national regulations. Containers that cannot be cleaned must be treated as waste.

### 14. TRANSPORT INFORMATION

#### Land Transport (Australia)

ADG Code

<b>Proper Shipping Name</b>	METHYL ISOBUTYL CARBINOL
<b>Class</b>	3 Flammable Liquids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	17 Liquids - Flammable, Toxic
<b>UN Number</b>	2053
<b>Hazchem</b>	•3Y
<b>Pack Group</b>	III
<b>Special Provision</b>	No Data Available

#### Land Transport (Malaysia)

ADR Code

<b>Proper Shipping Name</b>	METHYL ISOBUTYL CARBINOL
<b>Class</b>	3 Flammable Liquids
<b>Subsidiary Risk(s)</b>	No Data Available
<b>EPG</b>	17 Liquids - Flammable, Toxic
<b>UN Number</b>	2053
<b>Hazchem</b>	•3Y
<b>Pack Group</b>	III



Special Provision No Data Available

**Land Transport (New Zealand)**

NZS5433

Proper Shipping Name	METHYL ISOBUTYL CARBINOL
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
EPG	17 Liquids - Flammable, Toxic
UN Number	2053
Hazchem	•3Y
Pack Group	III
Special Provision	No Data Available

**Land Transport (United States of America)**

US DOT

Proper Shipping Name	METHYL ISOBUTYL CARBINOL
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
ERG	129 Flammable Liquids (Polar / Water-Miscible / Noxious)
UN Number	2053
Hazchem	•3Y
Pack Group	III
Special Provision	No Data Available

**Sea Transport**

IMDG Code

Proper Shipping Name	METHYL ISOBUTYL CARBINOL
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	2053
Hazchem	•3Y
Pack Group	III
Special Provision	No Data Available
EMS	F-E, S-D
Marine Pollutant	No

**Air Transport**

IATA DGR

Proper Shipping Name	METHYL ISOBUTYL CARBINOL
Class	3 Flammable Liquids
Subsidiary Risk(s)	No Data Available
UN Number	2053
Hazchem	•3Y
Pack Group	III
Special Provision	No Data Available

**National Transport Commission (Australia)**

Australian Code for the Transport of Dangerous Goods by Road &amp; Rail (ADG Code)

**Dangerous Goods Classification**

Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

**15. REGULATORY INFORMATION****General Information**

No Data Available

**Poisons Schedule (Aust)**

Not Scheduled

**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

**Approval Code**

HSR001193 (Reissued)

**National/Regional Inventories****Australia (AIC)**

Listed

**Canada (DSL)**

Listed

**Canada (NDSL)**

Not Listed

**China (IECSC)**

Listed

**Europe (EINECS)**

203-551-7  
203-550-1  
203-620-1

**Europe (REACH)**

Listed

**Japan (ENCS/METI)**

2-217  
2-542  
2-2475

**Korea (KECI)**

KE-24720  
KE-24725  
KE-10907

**Malaysia (EHS Register)**

Listed

**New Zealand (NZIoC)**

Listed

**Philippines (PICCS)**

Listed

**Switzerland (Giftliste 1)**

Not Determined

**Switzerland (Inventory of Notified Substances)**

Not Determined

**Taiwan (NCSR)**

Listed

**USA (TSCA)**

Listed

## 16. OTHER INFORMATION

<b>Related Product Codes</b>	MEISCA1000, MEISCA1001, MEISCA1002, MEISCA1003, MEISCA1004, MEISCA1005, MEISCA1006, MEISCA1007, MEISCA1008, MEISCA1009, MEISCA1010, MEISCA1011, MEISCA1012, MEISCA1013, MEISCA1014, MEISCA1051, MEISCA1052, MEISCA1055, MEISCA1056, MEISCA1058, MEISCA2000, MEISCA2001, MEISCA2200, MEISCA2500, MEISCA3000, MEISCA3001, MEISCA4000, MEISCA4001, MEISCA4002, MEISCA5000, MEISCA5001, MEISCA5002, MEISCA5003, MEISCA5004, MEISCA5020, MEISCA5025, MEISCA5050, MEISCA6000, MEISCA6100, MEISCA6101, MEISCA8000, MEISCB1000
<b>Revision</b>	3
<b>Revision Date</b>	21 Oct 2021
<b>Key/Legend</b>	<p>&lt; Less Than &gt; Greater Than</p> <p><b>AICS</b> Australian Inventory of Chemical Substances  <b>atm</b> Atmosphere  <b>CAS</b> Chemical Abstracts Service (Registry Number)  <b>cm<sup>2</sup></b> Square Centimetres  <b>CO<sub>2</sub></b> Carbon Dioxide  <b>COD</b> Chemical Oxygen Demand  <b>deg C (°C)</b> Degrees Celcius  <b>EPA (New Zealand)</b> Environmental Protection Authority of New Zealand  <b>deg F (°F)</b> Degrees Farenheit  <b>g</b> Grams  <b>g/cm<sup>3</sup></b> Grams per Cubic Centimetre  <b>g/l</b> Grams per Litre  <b>HSNO</b> Hazardous Substance and New Organism  <b>IDLH</b> Immediately Dangerous to Life and Health  <b>immiscible</b> Liquids are insoluable in each other.  <b>inHg</b> Inch of Mercury  <b>inH<sub>2</sub>O</b> Inch of Water  <b>K</b> Kelvin  <b>kg</b> Kilogram  <b>kg/m<sup>3</sup></b> Kilograms per Cubic Metre  <b>lb</b> Pound  <b>LC<sub>50</sub></b> LC stands for lethal concentration. LC<sub>50</sub> is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.  <b>LD<sub>50</sub></b> LD stands for Lethal Dose. LD<sub>50</sub> is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  <b>ltr or L</b> Litre  <b>m<sup>3</sup></b> Cubic Metre  <b>mbar</b> Millibar  <b>mg</b> Milligram  <b>mg/24H</b> Milligrams per 24 Hours  <b>mg/kg</b> Milligrams per Kilogram  <b>mg/m<sup>3</sup></b> Milligrams per Cubic Metre  <b>Misc or Miscible</b> Liquids form one homogeneous liquid phase regardless of the amount of either component present.  <b>mm</b> Millimetre  <b>mmH<sub>2</sub>O</b> Millimetres of Water  <b>mPa.s</b> Millipascals per Second  <b>N/A</b> Not Applicable  <b>NIOSH</b> National Institute for Occupational Safety and Health  <b>NOHSC</b> National Occupational Heath and Safety Commission  <b>OECD</b> Organisation for Economic Co-operation and Development  <b>Oz</b> Ounce  <b>PEL</b> Permissible Exposure Limit  <b>Pa</b> Pascal  <b>ppb</b> Parts per Billion  <b>ppm</b> Parts per Million  <b>ppm/2h</b> Parts per Million per 2 Hours  <b>ppm/6h</b> Parts per Million per 6 Hours  <b>psi</b> Pounds per Square Inch  <b>R</b> Rankine  <b>RCP</b> Reciprocal Calculation Procedure</p>

## **SAFETY DATA SHEET METHYL ISOBUTYL CARBINOL REVISION 3, DATE 21 OCT 21**

**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tne** Tonne  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight