

SOLVENT SUPPLIES LTD

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Section 1: Identification of the Material and Supplier

Product Name:	Methyl Isobutyl Ketone
Other Names:	2-Butanone, Butanone, 4-methyl, 4-methylpentan-2-one, Hexane, MIBK
Recommended use:	Industrial Chemical
Chemical Family:	Ketone
Molecular Formula:	C ₆ H ₁₂ O
Company Name:	Solvent Supplies Limited
Address:	33 Miro Street Otaki New Zealand PO Box 2019 Raumati Beach Paraparaumu
Fax:	04 902 1857
Email:	ss1994ltd@gmail.com
Emergency Telephone:	<i>New Zealand: 800 737 63</i> Monday to Friday 8.00am – 4.30pm New Zealand Poisons Centre: 0800 764 766 <i>Australia: 1800 738 383</i> Australian Poisons Centre: 1800 131 126

Dangerous Goods	Products that are classified as Dangerous for Storage and Transport: these products are allocated a UN No; with accompanying Class, Pack Group and Sub. Risk, if required. Products that do not have a specific description under the code but have low flash points, or such, must be classified under their most significant risk e.g Flammable Goods N.O.S (Not Otherwise Specified) UN 1993
Hazardous Substance	Products are considered to be hazardous if they pose intrinsic risk to human or environmental health, such as mutagens (able to change DNA) teratogens (able to result in birth defects) carcinogens (able to generate cell abnormalities) etc.
HSNO Act	Hazardous Substance and New Organisms Act – limits and manages the transaction of hazardous substances in New Zealand and her territories.

Section 2: Hazards Identification

Product is classified as hazardous according to Schedules 1 to 6 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 of the HSNO Act 1996.

HSNO Classification:	3.1B 6.1D 6.3B 6.4A 9.3B
Signal Word:	DANGER



Hazardous Statements

H225 Highly Flammable liquid and vapour
H303 Harmful if swallowed
H316 Causes mild skin irritation
H320 Causes eye irritation
H432 Toxic to terrestrial vertebrates

Precaution Statements

P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands and exposed skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.

Section 3: Composition/Information on Ingredients

Common Name:	CAS No:	Proportion (% v/v)
2-Pentanone, 4-methyl	108-10-1	100

Section 4: First Aid Measures

For advice contact NATIONAL POISON CENTRE (NZ 0800 764 766) or a doctor. Have product label or container at hand.

Swallowed:	If swallowed DO NOT induce vomiting. Obtain medical attention. If vomiting occurs spontaneously keep head below hips to prevent aspiration.
Skin Contact:	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair in running water. For advice contact the National Poisons Centre (0800 764 766) or a doctor.
Eye Contact:	Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes. Remove contact lenses if present and easy to do so after the first five minutes then continue flushing. Get medical attention if irritation persists.
Inhalation:	Move the victim to fresh air immediately. Keep warm and at rest. Obtain medical attention if rapid recovery does not occur.
First Aid Facilities:	Provide eye baths and safety showers close to areas where splashing may occur.
Medical Attention:	Treat according to symptoms. Causes nervous system depression.

Section 5:	Fire Fighting Measures
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Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing fire-fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable Extinguishing Media:	Alcohol foam, water spray or fog or fine mist. On small fires only may use dry chemical powder, carbon dioxide, sand or earth. Do not use water jet.
Hazards from combustion products:	Carbon dioxide, carbon monoxide other organic compounds.
Precautions for Fire-fighters and special protective equipment:	Wear self-contained breathing apparatus and full protective clothing.
Hazchem Code:	3YE

Section 6:	Accidental Release Measures
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Emergency Procedures:

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent any vapours from building up in confined areas. Vapours heavier than air can spread across the ground and distant ignition is possible. Ensure that drain valves are closed at all times. Clean up and report spills immediately or accidental release immediately.

Methods and materials for containment:

Major land spill:

- Eliminate sources of ignition
- Warn occupants of downwind areas of possible fire and explosion hazard
- Prevent product from entering sewers, water courses or low lying areas
- Keep the public away from the area
- Shut off the source of the spill if safe to do so

- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation
- Take measures to minimize the effect on the ground water
- Contain the spilled liquid with dry sand or earth
- A vapour suppressing foam may be used to reduce vapour
- Recover by pumping – use non-sparking tools, explosion proof pump or hand pump – or a suitable absorbent material
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations
- See “First Aid Measures” and “Stability and Reactivity”

Major water spill:

- Eliminate any sources of ignition
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard
- Notify the port or relevant authority and keep the public away from the area
- Shut off the source of the spill if possible and safe to do so
- Confine the spill if possible
- Remove the product from the surface by skimming or with suitable absorbent material
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations
- See “First Aid Measures” and “Stability and Reactivity”

Section 7:	Handling and Storage
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Precautions for safe handling:

This product is Highly Flammable. Do not open near naked flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Use grounding leads to avoid discharge (electrical spark). Do not use compressed air or filling, discharging or handling.

Conditions for safe storage including any incompatibilities:

Store in a closed container in a cool, dry place away from direct sunlight. Do not pressurize, cut or weld containers. Keep away from aerosols, flammables, oxidizing agents, corrosives and from products harmful to man or the environment.

Incompatible Material:

Avoid contact with natural, neoprene and nitrile rubbers (for pipes or tubing or fittings) and plastics or aluminum (for containers or linings).

Section 8:	Exposure Controls/Personal Protection
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Health Exposure Standards:

The following Tolerable Exposure Limit (TEL) and Workplace Exposure Standard (WES) have been set by the Occupational Safety and Health Service, NZ Department of Labour for this substance:

	WES-TWA	WES-STEL
Methyl isobutyl ketone	50 ppm (205 mg/m ³)	75 ppm (307 mg/m ³)

Biological limit values:

None established.

Engineering Controls:

Ventilation:

The use of local exhaust ventilation is recommended to control the process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

Personal Protection:

Respiratory Protection:

Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask suitable for organic gases and vapours to protect from over-exposure by inhalation.

Eye:

Always use safety glasses or a face shield when handling this product.

Skin/Body Protection:

Always wear long sleeves and long trousers or overalls and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves e.g butyl rubber, be worn. For incidental/splash protection natural, neoprene or nitrile rubber can be used.

Section 9:	Physical and Chemical Properties
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Property	Unit of Measurement	Typical Value
Appearance	-	Clear, colourless liquid
Boiling Point/Range	C	114-117
Flash Point	C	14
Density @ 20C	g/ml	0.799 – 0.802
Vapour Pressure @ 20C	kPa	1.9
Evaporation Rate		1.6
Auto ignition Temperature	C	460
Explosive Limits in Air	%	1.3-8.0
Volatile organic carbon content	%	71.9
Solubility in Water @ 20C	g/L	20

The values listed are indicative of this product's physical and chemical properties. For a full product specification please consult the Product Data Sheet.

Section 10:	Stability and Activity
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Chemical Stability: Stable at room temperature and pressure.
Conditions to avoid: Sources of heat and ignition and open flames and sparks.
Hazardous decomposition products: No decomposition products except on burning.
 See "Fire Fighting Measures" and "Hazardous Reactions".
Hazardous reactions: Strong oxidizing agents.

Section 11:	Toxicological Information
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Acute Effects:

Ingestion:

Harmful if swallowed.

Eye Contact:

Irritating to the eyes. Symptoms may include burning sensation, redness, swelling and/or blurred vision.

Skin Contact:

Irritating to the skin. Symptoms may include burning sensation, redness, swelling and/or blisters. Prolonged or repeated exposure may result in dryness and cracking.

Inhalation:

Irritating to the respiratory system. Symptoms of irritation may be a temporary burning sensation in the nose and throat, coughing and/or difficulty in breathing. If product enters lungs, symptoms may be coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath and fever. Vapours may cause drowsiness and dizziness.

Chronic Effects:

Central nervous system depressant.

Toxicological Information:

Methyl isobutyl ketone	Oral LD50 (guinea pig)	1600 mg/kg
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Section 12:	Ecological Information
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Ecotoxicity:	Ecotoxic to terrestrial vertebrates.		
Ecotoxicological information:	Red-winged black bird	LD50 oral	100 mg/kg
Persistence/Degradability:	Product volatilizes and oxidizes rapidly in air. Readily bio degradable. Not expected to bio accumulate significantly.		
Mobility:	Product floats on water. Is volatile and will rapidly evaporate to the air.		
Environmental Exposures Standards:	EEL (WATER): Not Set EEL (SOIL): Not Set		

EEL(SEDIMENTS): Not Set

Section 13: Disposal Considerations

Disposal Methods:

Recover and recycle product whenever possible.

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain fumes and vapour that are highly flammable and harmful. Ensure that empty packaging is allowed to dry in a safe place away from sparks and fire.

Special precautions for Landfill or Incineration:

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ash-less and can be burned directly in appropriate equipment.

Section 14: Transport Information

Road and Rail Transport		Marine Transport		Air Transport	
UN No	1245	UN No	1245	UN No	1245
Proper Shipping Name:	Methyl Isobutyl Ketone	Proper Shipping Name:	Methyl Isobutyl Ketone	Proper Shipping Name:	Methyl Isobutyl Ketone
DG Class:	3	DG Class:	3	DG Class:	3
Sub Risk:	None	Sub Risk:	None	Sub Risk:	None
Pack Group:	II	Pack Group:	II	Pack Group:	II
Hazchem:	3E	Hazchem:	3E		

Dangerous Goods Segregation:

This product is classified as a Dangerous Goods Class 3, packing group II.

Please consult the Land Transport Rule: Dangerous Goods 2005 and NZS 5433-2012 Transport of Dangerous Goods on Land for information.



Section 15: Regulatory Information

Country/Region: New Zealand, South Pacific
Inventory: AICS, NZCIL
Status: Listed
ERMA New Zealand Approval Code: HSR001194
HSNO Default Controls: Codes: F1, F2, F3, F4, F5, F6, F11, F12, F14, F16, F17, T1, T2, T4, T7, T8, E1, E2, E4, E6, E8, P1, P3, P5, P13, P15, PG2, D2, D4, D7, D8, EM1, EM4, EM6, EM9, EM10, EM11, EM12, EM13, I1, I3, I5,

I8, I9, I11, I13, I16, I17, I18, I19, I20, I21, I23, I25, I28, I29, I30,
AH1, GN35A

Refer to www.ermanz.govt.nz for more information on Controls.

Section 16:	Other Information
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Date of Preparation: September 2019
Reasons for issue: New Safety Data Sheet

Abbreviations:

AICS:	Australian Inventory of Chemical Substances
BEI:	Biological Exposure Index
b.w:	Body Weight
CAS Number:	Chemical Abstracts Number
HSNO:	Hazardous Substance & New Organisms
IARC:	International Agency for Research on Cancer
NIOSH:	National Institute of Occupational Safety & Health
NOHSC:	National Occupational Health & Safety Commission
NZIoC:	New Zealand Inventory of Chemicals
P.P.M:	Parts per million of vapour or gas in air (by volume) at 25 OC @ atmospheric pressure
REL:	Recommended Exposure Limits
STEL:	Short Term Exposure Limit (15 minute exposure period)
TWA:	Time Weighted Average
WES:	Workplace Exposure Standard

Safety data sheets are updated frequently. Please ensure you have a current copy.

Disclaimer:

Before using any product, read its label carefully to ensure that you understand its contents. The information contained herein is based on data considered accurate and reliable to the best of our knowledge and belief of the date compiled. However no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use hereof. Solvent Supplies Limited assumes no responsibility for personal injury or property damage to vendors, users or third parties caused by the material. Such users or vendor assume all risks associated with the use of the material. It is the user's responsibility to satisfy themselves as to the suitability and completeness of the information for their own particular use. The users must determine whether the use of the information and data is in accordance with local laws and regulations.