

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: METHYL ETHYL KETONE (MEK)
(AMAZING HASTE)

Other Names: MEK, Ethyl Methyl Ketone, 2 Butanone

Recommended Use: Cleaner & degreaser; raw material for manufacture of adhesives, surface coatings and other products.

Supplier: TMK Packers Ltd

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PO Box 258 031, Botany, Manukau 2163

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Website: www.tmkpackers.co.nz

Emergency phone: National Poison Centre
0800 POISON [0800 764 766]



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 Classifications: 3.1B, 6.1E, 6.3B, 6.4A, 6.9B

Signal word: DANGER

Hazard Statements :

H225 Highly flammable liquid and vapour	H320 Causes eye irritation
H303 May be harmful if swallowed	H373 May cause damage to organs through prolonged or repeated exposure
H316 Causes mild skin irritation	

Precautions Statements :

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

3. COMPOSITION : Information on Ingredients



Chemical Ingredient	CAS No.	Proportion (%)
Methyl ethyl ketone	78-93-3	100

4. FIRST AID MEASURES

For advice, contact National Poison Centre (0800 POISON ; 0800 764 766) or a doctor. Have product container or label available.

Swallowed

If swallowed, do NOT induce vomiting. Rinse mouth. Where there is risk of vomiting, lean person forward or place on left side to avoid aspiration of product into lungs. Obtain immediate medical attention.

Skin Contact

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If irritation persists, get medical attention.

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, after the first 5 minutes and continue rinsing. Get medical attention if irritation persists.

Inhalation

Move the victim to fresh air immediately. Keep warm and at rest until recovered. Get medical attention if symptoms continue.

Begin artificial respiration if breathing has stopped. Get immediate medical attention.

First Aid facilities

Provide eye baths and safety showers close to areas where splashing may occur.

Medical Attention

Treat according to symptoms. Gastric lavage may be indicated if ingested. Any product aspirated during vomiting may produce lung injury.

5. FIRE FIGHTING MEASURES

Flashpoint: -4°C

Flammable limits: LFL : 1.85 UFL: 11.5%

Extinguishing media:

Alcohol foam, water spray or fog.

Dry chemical powder, CO₂ sand or earth can be used for small fires only.

Fire & Explosion hazards:



Liquid and vapours are highly flammable. Vapour is heavier than air, spreads along ground and distant ignition is possible. Do not breathe smoke, gases or vapours generated in a fire. Expansion or decomposition of containers may lead to rupture of containers.

Firefighting Equipment:

Full protective clothing and self-contained breathing apparatus (SCBA).

In event of fire:

- Alert Fire Bridge (111); advise location and nature of hazard.
- Wear breathing apparatus and protective gloves.
- Shut off product that may 'fuel' a fire if safe to do so.
- If safe, switch off electrical equipment until vapour hazard removed.
- Allow trained personnel to attend a fire in progress, providing fire-fighters with this Safety Data Sheet.
- Prevent product and extinguishing media from escaping to drains and waterways.

Hazards from combustion products:

Carbon dioxide, carbon monoxide.

Hazchem Code: 2YE

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures & Containment:

Refer to "Fire Fighting Measures", "First Aid Measures" and "Stability and Reactivity".

Minor spills

- Remove or eliminate all ignition sources.
- Clean up spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear personal protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Collect residues and waste material in a labeled container suitable for flammables.
- Seal container and dispose of safely.

Major spills

- Clear area of personnel and move upwind.
- Alert Fire Bridge (111); advise location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Prevent by any means available, spillage from entering drains, sewers, watercourses, or low-lying areas.
- Eliminate sources of ignition, naked lights. No smoking.
- Increase ventilation.
- Water spray or fog may be used to disperse/absorb vapour.
- Use only spark-proof tools, e.g. shovels, and explosion proof equipment, e.g. pumps.



- Collect recoverable product into labeled contains for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labeled drums for disposal.
- Wash area and prevent run off into drains.
- If contamination of drains or waterways occurs, advise Emergency Services and Local or Regional authority.

7. HANDLING AND STORAGE

Precautions for safe handling:

Read product label before use.

This product is highly flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static discharge. Use grounding leads to avoid discharge (electrical spark), spark-free tools and equipment suitable for flammables.

Use outdoors or in well-ventilated area. Wear personal protective equipment. Wash hands with soap and water after handling. Wash protective clothing separate to household laundry.

Conditions for safe storage:

Keep out of reach of children. Store in a cool, dry place away from direct sunlight. This product will fuel a fire in progress. Check containers periodically for leaks or distortion.

Incompatible materials:

Plastics, aluminum, n or neoprene or nitrile rubbers.

8. EXPOSURE CONTROLS : PERSONAL PROTECTION

Health Exposure Standards:

Workplace Exposure Standards (WES), 2002 have been set by the Occupational Safety and Health Service , NZ Department of Labour for this product.

	WES-TWA	WES-STEL
Methyl ethyl ketone	150 ppm (445 mg/m ³)	300 ppm (800 mg/m ³)

Biological limit values :

None established

Engineering Controls:

Ventilation:

Use product outdoors or in well-ventilated area. The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation in confined spaces. Use



explosion-proof ventilation equipment.

Personal Protective Equipment:

Respiratory Protection: Where use is indoors or confined spaces, or concentrations in air may exceed the limits described in the Workplace Exposure Standards, use respiratory protection. Use a suitable filter suitable for organic gases and vapours. Under high risk situation, use an appropriate positive pressure breathing apparatus.

Eye Protection: Protect eyes from splashes or vapour. It is recommended safety glasses with side shields or goggles be worn.

Skin/ Body Protection:

Wear chemical resistant gloves, e.g. neoprene or nitrile rubber. Also wear safety footwear or safety gumboots, e.g. rubber. Always wear long sleeves and long trousers or coveralls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance	-	Clear colourless liquid
Odour	-	Characteristic
Flash Point	°C	-4 °C
Specific gravity @ 20°C	g/ml	0.804- 0.806
Vapour Pressure @ 20°C	kPa	9.5
Vapour Density @ 20°C	kPa	2.4
Explosive Limits in Air	%	1.8 – 11.5
Volatiles Organic Carbon	%vol/vol	66.6
Alkalinity/acidity (as pH)	-	Not applicable
Solubility in Water	% w/w	Miscible

The values listed are indicative of this product's physical and chemical properties.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature and pressure.

Conditions to avoid: Sources of heat and ignition, open flames.

Hazardous decomposition products: No decomposition products except on burning. See "Fire Fighting Measures" and "Hazardous Reactions".

Hazardous reactions: Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion



Harmful if swallowed. Ingestion of large amounts will have effect on central nervous system with possible symptoms of headache, dizziness, hallucinations, euphoria, loss of appetite, tingling sensation in extremities, vomiting and possible loss of consciousness.

Eye Contact

This product in liquid or vapour form is irritating to eyes. Can cause corneal burns.

Skin Contact

Product is mildly irritating to skin with short term contact. Prolonged or repeated exposure will increase risk of dryness and cracking of skin.

Inhalation

Vapour concentrations are irritating to nose and throat. Exposure to high concentrations have adverse effects on central nervous system with possible symptoms of headache, dizziness, vomiting and loss of appetite.

Chronic Effects

Affects peripheral nervous system (arms and legs).

Other Health Effects Information:

People with pre-existing liver or kidney dysfunction should limit exposure to this product.

Toxicological Information:

Methyl ethyl ketone Rat, oral, LD₅₀ 2737 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Aquatic toxicity: Product is not identified as being ecotoxic to aquatic life.

Persistence/degradability: Expected to biodegrade rapidly. Considered to have negligible bioaccumulative effects.

Mobility: This product is highly volatile and will rapidly evaporate to air if released into water. Large volumes in soil could penetrate groundwater.

Other information: None

Environmental Exposure Standards:

EEL (WATER):	Not set
EEL (SOIL)	Not set
EEL (SEDIMENTS)	Not set

13. DISPOSAL CONSIDERATIONS

Disposal Methods:

Care should be taken to ensure compliance with national, regional and local authority regulations. Packaging may still contain fumes and vapours that are flammable. Ensure that empty packaging is



allowed to dry. Product can be offered for recycling, recovery or disposal through a suitably qualified or licensed contractor. Suitable for disposal by incineration.

14. TRANSPORT INFORMATION

UN Number: 1193
Shipping name: METHYL ETHYL KETONE
Class: 3
Packing group: II
Hazchem code: 2YE

Dangerous Goods Segregation

This product is classified as Dangerous Goods Class 3, packing group II.
Please consult NZS 5433:2007 Transport of Dangerous Goods on Land for information.

15. REGULATORY INFORMATION

Country/ Region: New Zealand

Inventory: NZCIL

Status: Listed

ERMA New Zealand Approval Code:

HSR001190 Methyl ethyl ketone

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

16. OTHER INFORMATION

Date of Issue: 27th April, 2010
Reasons for Issue: Change in format; add heading.
Replaces: 22nd March, 2010

Abbreviations:

CAS No Chemical Abstracts Number
ERMA Environmental Risk Management Authority
HSNO Hazardous Substances and New Organisms
NZCI New Zealand Chemical Inventory
STEL Short Term Exposure Limit
TWA Time Weighted Average
WES Workplace Exposure Standard

References:

Supplier Material Safety Data Sheets

ERMA website: www.ermanz.govt.nz

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact TMK Packers Ltd.

END OF SAFETY DATA SHEET

