



MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: METHYL ETHYL KETONE

Company: Recochem Inc. ABN: 69 010 485 999
Address : 1809 Lytton Road, Lytton, Queensland 4178
Phone: (07) 3308 5200 Fax: (07) 3308 5201
Emergency Telephone Number: (07) 3308 5200 Day, After Hours 1300 131 001

Other Names: Ethyl Methyl Ketone, MEK, 2-butanone
Manufacturer's Product Code: 16256
Recommended Use: Solvent

SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA
A DANGEROUS GOODS ACCORDING TO THE CRITERIA OF THE ADG CODE**

Symbols: F - Flammable
Xi - Irritant
Risk Phrases: R11 - Highly flammable
R36 - Irritating to eyes
R66 - Repeated exposure may cause skin dryness or cracking
R67 - Vapours may cause drowsiness and dizziness
Safety Phrases: S2 - Keep out of the reach of children
S9 - Keep container in a well ventilated place
S16 - Keep away from sources of ignition – No smoking

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients

| <i>Chemical Entity</i> | <i>CAS Number</i> | <i>Proportion (%)</i> |
|------------------------|-------------------|-----------------------|
| Methyl Ethyl Ketone | 78-93-3 | > 99 |

SECTION 4 FIRST AID MEASURES

FIRST AID TREATMENT

Swallowed: If swallowed, do NOT induce vomiting. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Eye: If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek immediate medical assistance.

Skin: If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If irritation occurs seek medical advice.

Inhaled: Remove victim from exposure if safe to do so and to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

First Aid facilities: Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.

Advice to Doctor: Treat symptomatically.

Additional Information: None available.

Product: METHYL ETHYL KETONE

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazards: A Highly flammable liquid. May form flammable vapour mixture with air. Avoid all ignition sources. Flameproof equipment necessary in area where chemical is being used. Nearby equipment must be earthed. Vapours may travel considerable distances to source of ignition and flashback. Vapours may accumulate in low or confined areas.

Suitable Extinguishing Media: Alcohol stable foam, water spray or fog. Dry chemical powder, carbon dioxide may be used for small fires only. Do not use water in a jet.

Hazards from combustion products: Carbon monoxide and/or Carbon dioxide may be evolved.

Precautions for Fire Fighters and Special Protective Equipment: Wear full protective clothing and self-contained breathing apparatus.

Additional Information: Hazchem code •2YE.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Observe all local and national regulations.

Spills and Disposal: Shut off all sources of ignition. Increase ventilation. Clear area of all unprotected personnel. Stop leak if safe to do so. Absorb with dry earth, sand or other non-combustible and inert material. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Methods and Materials for Containment and Clean Up Procedures: For small spills (<1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely. For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Retain as contaminated waste. Allow and residues to evaporate or use an appropriate absorbent material and dispose of safely.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling and Storage: Avoid breathing of or contact with material. Use in well ventilated areas. Wash thoroughly after handling. Avoid contact with skin and eyes and clothing. Handle open containers in well ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Do not empty into drains. Do not eat, drink or smoke in contaminated areas. Before eating, drinking or smoking, remove contaminated clothing and wash hands. Do not store near strong oxidants.

Dispensing: Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment.

Flammability: Highly flammable.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards: National Occupational Health & Safety Commission (NOHSC) Worksafe Australia has set an exposure standard 445mg/m³ (150ppm) TWA (8hr), STEL 890mg/m³ (300ppm).

Biological Limit Values: No biological limit allocated.

Personal Protective Equipment:

Respiratory Protection: If inhalation risk exists an approved organic vapour respirator (AS/NZS 1715 and 1716) should be worn.

Hand Protection: Use solvent resistant gloves (nitrile, PVC or neoprene).

Eye Protection: Wear safety goggles.

Protective Clothing: Use chemical resistant glove/gauntlets, boots and apron. Skin protection not ordinarily required beyond standard issue work clothes.

Engineering Controls: Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists. Keep containers closed when not in use.

SECTION 9 IDENTIFICATION

PHYSICAL DESCRIPTION / CHEMICAL PROPERTIES

| | |
|-------------------------------|-------------------------|
| Appearance | Colourless Clear Liquid |
| Odour | Characteristic |
| pH: | N/A |
| Vapour Pressure (kPa @ 20°C): | 9.5 |
| Vapour Density (air = 1) | 2.4 @ 20 Deg C |

Product: METHYL ETHYL KETONE

| | |
|---------------------------------|-----------------|
| Boiling Point (°C): | 79 - 80 |
| Freezing/Melting Point (°C): | -86 |
| Solubility in Water | 250g/l at 20°C |
| Specific Gravity (g/ml @ 15°C): | 0.805 |
| Flashpoint (°C): | -4 (Closed cup) |
| Flammability Limits (%): | 1.8 - 11.5 |
| Auto Ignition Temperature (°C): | 515 |
| Percent Volatiles | 100 |

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use.

Conditions to Avoid: Avoid heat, sparks, open flames and other ignition sources.

Incompatible Materials: Strong oxidising agents, reducing agents, acids, alkalis.

Hazardous Decomposition Products: Burning can produce carbon monoxide and/or carbon dioxide.

SECTION 11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Acute:

Swallowed: Low toxicity: LD50 > 2000mg/kg, Rat.

Eye: Irritating to eyes.

Skin: Low toxicity: LD50 > 2000mg/kg, Rabbit. May cause moderate skin irritation (but insufficient to classify).
Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Inhaled: Low toxicity: LD50 > 20mg/l 4 hours, Rat. Inhalation of vapours or mists may cause irritation to the respiratory system. High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.

Chronic: Not a skin sensitiser, not mutagenic.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

| | |
|-----------------------|---------------------------------------|
| Fish | : Low toxicity: LC/EC/IC50 > 1000mg/l |
| Aquatic Invertebrates | : Low toxicity: LC/EC/IC50 > 100mg/l |
| Algae | : Low toxicity: LC/EC/IC50 > 1000mg/l |
| Microorganisms | : Low toxicity: LC/EC/IC50 > 1000mg/l |

Mobility: Miscible with water.

Persistence/degradability: Biodegradable, oxidises by photo-chemical reactions in air.

Bioaccumulation: Not expected to bioaccumulate significantly.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal Methods: Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

| | | | |
|-------------------------------|------|-----------------------|---------------------|
| UN Number: | 1193 | Proper Shipping Name: | Ethyl Methyl Ketone |
| Class: | 3 | Subsidiary Risk: | None allocated |
| Packing Group: | II | Hazchem Code: | ●2YE |
| Special Precautions for User: | None | | |

SECTION 15 REGULATORY INFORMATION

Poisons Schedule : 5

AICS : Listed

Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76:2010) : 14

Product: METHYL ETHYL KETONE

SECTION 16 OTHER INFORMATION

Further Information may be obtained by contacting Recochem on (07) 3308 5200

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.
