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**IDENTIFICATION of the SUBSTANCE(S) and COMPOSITION**

Product Name	METHYL ETHYL KETONE	Code	MEK
Product Use	Use as a solvent.		
Ingredients	Name	CAS Number	Proportion w/w
	Methyl Ethyl Ketone	78 – 93 – 3	60 – 100 %

HAZARD IDENTIFICATION

The product is classified both as **Dangerous Goods and Hazardous Substance** in accordance to ASCC

Risk Phrases R

- 11 Highly Flammable Liquid
 20/21/22 Harmful by inhalation, contact with the skin and if swallowed.
 36/37/38 Irritating to the eyes, respiratory tract and skin.
 52/53 Harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.
 66/67 Repeated or prolonged exposure may cause skin dryness and cracking. Vapours may cause headaches, drowsiness and dizziness.

Safety Phrases S

- 2 Keep out of reach of children.
 7/9 Keep containers tightly closed when not in use and also in a well ventilated area.
 15 Keep away from heat.
 16/33 Keep away from sources of ignition. Take precautionary measures against static electricity.
 20/21 When using, do not eat, drink or smoke.
 23.5 Do not breathe vapours and spray mists.
 24/25 Avoid skin contact and with the eyes.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 27 Take off immediately all contaminated clothing.
 28.1 In contact with the skin, wash immediately soap and plenty of water.
 36/37/38/39 The wearing of an Organic Vapour Respirator, Safety Glasses fitted with side – shields, Viton or PVC gloves, enclosed footwear, high temperature and anti – static clothing.
 45 In case of accident, or if you feel unwell, seek medical advice immediately. Show the label where possible.
 62 If swallowed, do not induce vomiting: seek medical advice immediately. Show the label where possible.

ADG Classification ETHYL METHYL KETONE, UN 1193, Class 3, HAZCHEM 2[Y]E, Packing Group II, Initial Emergency Response Guide 14.

SUSDP Classified as a Schedule S 5 poison.

FIRST AID MEASURES

<i>Inhalation</i>	If the applicator feels drowsy, dizzy, tired or experiencing headaches, remove the victim to the fresh air. Keep the victim warm and quiet until all symptoms subside.
<i>Ingestion</i>	If swallowed, and only if the person is conscious, give clean water to drink. If any symptoms occur, DO NOT induce vomiting; seek URGENT medical attention if frothing from the mouth occurs.
<i>Eyes</i>	If splashed into eyes, hold eyes open, irrigate copiously with clean water for at least 15 minutes. Seek immediate medical attention if any irritation occurs.
<i>Skin</i>	If skin contact occurs, remove contaminated clothing, and wash thoroughly with soap and plenty of water. Seek medical attention if any irritation occurs.
<i>First Aid Facilities</i>	Clean Water Supply, soap or skin cleaner, barrier cream, emergency showers and eye wash stations.
<i>Advice to Doctor</i>	If poisoning occurs, consult with the Poisons Information Centre {Telephone 13 11 26 }. Have a copy of this material safety data sheet or label available. Treat symptomatically as systems may be delayed for several hours after exposure.



FIRE FIGHTING MEASURES

<i>Extinguishing Media and Requirements</i>	Carbon Dioxide {CO ₂ }, alcohol resistant foam, dry chemical or water spray. DO NOT use water jets. Bund area with sand to prevent run – off entering waterways and drains.
<i>Fire Fighting Procedures & Precautions</i>	Fire – fighters must wear Chemical Splash Suit with attached Self – Contained Breathing Apparatus and gloves. Evacuate all non fire–fighting personnel away from the area. Turn off all electricity and power supplies. Keep containers cool with water spray or water to prevent rupture or burning. Move away all containers and equipment from the direction of the fire, if safe to do so. Keep upwind.
<i>Flammability Hazardous Decomposition Products</i>	Highly Flammable Liquid. Flash Point = - 4 °C On heating, containers may rupture and explode: contents may burn rapidly forming toxic gases including carbon monoxide



ACCIDENTAL RELEASE MEASURES

<i>Spills and Leaks</i>	Remove all sources of ignition and NO SMOKING . Wear the recommended full body impervious clothing, gloves and breathing apparatus as per AS– NZ 1715/16. Keep upwind. Remove all unwanted personnel away from the contaminated area.
<i>Disposal</i>	Methyl Ethyl Ketone is water soluble. Dilute the spilt contents with water and absorb onto dry sand or soil for disposal by an approved method. Contact the local Statutory Authorities.
<i>Other Precautions</i>	Avoid contaminating waterways, drains, water courses and sewage.



HANDLING and STORAGE

Handling	Keep out of reach of children. Avoid unnecessary contact with the material. After use before eating, drinking or smoking wash all exposed skin with soap and water.
Storage	Containers must be clearly labelled, rigid and strong. Store upright in a cool, dry, well ventilated area from heat, ignition sources and direct sunlight e.g. Flammable Goods Store as per AS 1940 requirements.

EXPOSURE CONTROLS

Exposure Standards MAK	Methyl Ethyl Ketone = 600 mg/m ³ .
Exposure Standards STEL	Methyl Ethyl Ketone = Not Known
Engineering Controls	The use of local exhaust ventilation equipment is required. All ventilation equipment must be fitted with flame and explosion proof electrical fittings.

PERSONAL PROTECTION

Inhalation AS –NZS 1715/16	The wearing of an Organic Vapour Respirator must be worn during the application period.
Eye AS –NZS 1337	The wearing of safety glasses fitted with side shields must be worn at all times during the application period. Do not wear contact lenses.
Gloves AS –NZS 2161	The wearing of Viton or PVC elbow length gloves must be worn at all times during the application period..
Footwear AS –NZS 2210	The wearing of enclosed footwear must be worn during the application period.
Clothing AS –NZS 2919	The wearing of anti–static clothing made on natural or synthetic high temperature fibre must be worn during the application period.
Hearing AS –NZS 1270	Not Required.
Other Requirements	Avoid contact with eyes and skin. Avoid inhaling vapours and spray mists at all times.

**PHYSICAL – CHEMICAL PROPERTIES**

Appearance	A colourless liquid with a characteristic odour.	
pH	Not required.	
Vapour Pressure (Butyl Acetate = 1)	Greater than 1.0	
Boiling Point °C	78 – 79 °C {literature value}	
Density	0.80 {literature value}	
Solubility in water	Miscible	
Flash Point °C	- 4 °C {literature value}	
Flammability Limits	Lower Explosive Limit = 3.5 %	Upper Explosive Limit = 11.5 %
Auto Ignition °C	505 °C	
Volatile Components	Methyl Ethyl Ketone	

STABILITY and REACTIVITY

Chemical Stability	Stable under normal conditions of use.
Conditions to avoid	Avoid contact with heat and all ignition sources.
Hazardous decomposition products	On heating, containers may rupture and explode: contents may burn rapidly forming toxic gases including carbon monoxide.
Incompatible materials	Incompatible with strong oxidizing agents
Hazardous Reactions	Will not polymerize.

TOXICOLOGICAL INFORMATION

<i>Health Effects</i>	<i>Risk Phrase</i>	<i>Methyl Ethyl Ketone</i>
Inhalation LC ₅₀ rat	20	> 20mgm/L
Dermal LD ₅₀ rabbit	21	> 2000mgm/kgm
Oral LD ₅₀ rat	22	> 2000mgm/kgm

Note

Risk phrases R20/21/22 has been assigned by the EEC Council Directive 67/548/EEC.
Risk Phrases R20/21/22 – Harmful by inhalation, skin contact or if swallowed.

Acute Oral Toxicity rat	Low toxicity.
Acute Dermal Toxicity rabbit	Low toxicity
Acute Inhalation Toxicity rat	Low toxicity.

OTHER TOXICOLOGICAL INFORMATION

Health Effects

Inhalation	High concentrations may cause central nervous system depression resulting in headaches, dizziness, nausea, loss of co-ordination and impaired judgement: continued inhalation may result in narcosis and vomiting
Ingestion	Large quantities may cause nausea and vomiting.
Eyes	Irritating to the eyes, including burning sensation, redness, swelling and/or blurred vision.
Skin	May cause irritation to the skin.
Carcinogenicity	Not carcinogenic in animal studies.
Mutagenicity	Not mutagenic in animal studies
Reproductive Toxicity	May cause foetotoxicity in animals at doses which are maternally toxic. Does not impair fertility.

ECOLOGICAL INFORMATION

Environment	Harmful to aquatic organisms (R52). May cause long – term adverse effects in the aquatic environment (R53).
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DISPOSAL CONSIDERATIONS

Collect all residues and placed into labelled and sealed containers. Do not incinerate empty containers after use. Dampen all unwanted cloths and rags in water prior to disposal. Do not recycle contents or spent containers. Crush all small empty containers. Larger containers and drums may be sent to an approved drum recycler. Ensure all contents do not pollute waterways, drains and other water courses.



TRANSPORT INFORMATION

UN number	1193		
Proper Shipping Name	ETHYL METHYL KETONE		
Class	3	Subsidiary Risk	Not Required
Packing Group	II		
Emergency Procedures	3300	Initial Emergency Response Guide	14
HAZCHEM	2[Y]E		
IMDG	Not Known		



REGULATORY INFORMATION

SUSDP Classified as a Schedule S 5 poison.

OTHER INFORMATION

Emergency Contact **Poisons Information Centre 13 11 26** **HiChem Paint Technologies (03) 9796 3400**

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