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Mainland Printing Inks 2018  
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Christchurch 8242, New Zealand  
Phone : ++ 64 3 338- 6321  
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Quality  
ISO 9001

## Safety Data Sheet

### 1. Identification Of The Material & Supplier

**Product Name :** Methyl Ethyl Ketone

**Other Names(s) :** MEK, Ethyl Methyl Ketone, 2 Butanone

**Chemical Formula :** CH<sub>3</sub>COC<sub>2</sub>H<sub>5</sub>

**Use or Description :** Industrial Solvent

**Suppliers Name :** Mainland Printing Inks,  
**Street Address :** 351 Selwyn Street, P.O.Box 12-171, Christchurch 8242, New Zealand.  
**Telephone :** +64 3 338 6321  
**Facsimile :**

**Emergency Telephone :** National Poisons & Hazardous Chemicals  
Information Centre : 0800 POISON (0800 764 766)  
NZ Emergency Services : Dial 111 (if in doubt)  
Mainland Directors, M Selwood & P Connolly : Bus +64 3 338-6321  
Mobile +64 027 5157339

**ML. Product No.** 61285 **ML. R/M Code** M80 **ML. R/M No.**

### 2. Hazards Identification



#### Hazard Classification:

3.1B - Highly flammable liquid and vapour.  
6.1E (Inhalation) - Substance that may be harmful if inhaled.  
6.3B - Substance that causes mild skin irritation.  
6.4A - Substance that causes serious eye damage.  
6.9B - Substance that may cause damage to organs.

#### Hazard statement codes:

H225 Highly flammable liquid and vapour.  
H333 May be harmful if inhaled.  
H316 Causes mild skin irritation.  
H319 Causes serious eye irritation.  
H373 May cause damage to organs.

#### Precautionary statement codes - prevention:

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/lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing fumes / gas /mist vapours spray.  
P271 Use only outdoors in a well-ventilated area.

P264 Wash skin thoroughly after handling.  
P280 Wear protective equipment as required.

**Precautionary statement codes - Response:**

P101 If medical advice is needed, have product container or label at hand.  
P303+P361+P353 IF ON SKIN Remove immediately all contaminated clothing. Rinse skin with water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P304+P312 IF INHALED Call a Poison Centre if you feel unwell.  
P314 Get medical advice/attention if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire use foam/carbon dioxide/dry chemical.

**Precautionary statement codes - Storage:**

P403+P235 Store in a well ventilated area. Keep cool.  
P405 Store locked up.

**Precautionary statement codes - Disposal:**

P501 Disposal of this substance must be in accordance with the Hazardous Substances (Disposal) Regulations 2001 with reference to all local Council regulations. This may also include any method of disposal that must be avoided.

### 3. Composition / Information On Ingredients

Potentially Hazardous Ingredients	% by weight (approx)	TLV (TWA)		STEL (TWA)		Note CAS No.
		mg/m3	ppm	mg/m3	ppm	
M80 Methyl Ethyl Ketone	>99	590	200			78-93-3

### 4. First Aid Measures

<b>Inhalation</b>	Remove from further exposure. If unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.
<b>Skin Contact</b>	Removing contaminated clothing and shoes. Wash contact areas with soap and water for at least 15 minutes. Get medical attention. Launder contaminated clothing before re-use.
<b>Eye Contact</b>	Immediately flush effected eye(s) thoroughly with water for at least 15 minutes. Remove contact lenses if present and easy to do so. Seek immediate medical attention.
<b>Ingestion</b>	If swallowed, vomiting may occur spontaneously, but <b>do not</b> induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration into the lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.
<b>Health Hazard : Information</b>	The following effects are likely should over exposure occur: Narcotic effects occur at levels above the TLV. Corneal damage will occur after prolonged contact. Strong eye irritation. moderate skin irritation respiratory irritation. Dizziness, nausea, and loss of consciousness.

### 5. Fire Fighting Measures

**Extinguishing Media to be used**

☒ Foam ☒ Dry Chemical ☒ Water Spray  
☒ Carbon Dioxide ☐ Alcohol Foam ☐ Other...

**Special Fire Fighting Procedures**

storage drums with water spray. This highly flammable liquid must be kept from sparks, open flame, hot surfaces and all sources of heat and ignition. Prevent run off from fire control or dilution from entering stream, sewers or drinking water supply.

#### Unusual Fire and Explosion Hazards

Extremely flammable liquid. Vapour accumulation could flash and/or explode if ignited. Contact with strong oxidisers may cause fire. Sealed containers may rupture when heated. Sensitive to static discharge.

## 6. Accidental Release Measures

#### Spill and Leak Procedure

Ventilate area of leak or spill. Remove leaking containers to a detached area. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Bung spill area and absorb spilled product with inert material (e.g.. sand, earth etc.) Transfer remaining product in leaking container to a new container and solid absorbent materials to separate container for disposal. Dispose of waste at an appropriate waste disposal facility in accordance with local authority bylaws.

## 7. Handling & Storage

#### Handling

Use in well ventilated area away from all ignition sources. Wear chemical-type goggles. Approved respiratory protective equipment must be used when vapour or mist concentrations exceed established Threshold Limit Value - 200ppm. Ground and bond all transfer equipment.

#### Storage

Ground and bond all transfer and storage equipment away from any area where fire hazard may be acute. Drums must be grounded and bonded and equipped with self closing valves, pressure vacuum bungs and flame arresters. Outside or detached storage preferred. Store containers in a cool area away from all ignition sources.

## 8. Exposure Control / Personal Protection

#### Recommended Personal Protective Equipment to be worn during use of product: (X)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Protective Overalls | <input checked="" type="checkbox"/> Synthetic Apron   |
| <input type="checkbox"/> Safety Glasses                 | <input checked="" type="checkbox"/> Vapour Respirator |
| <input checked="" type="checkbox"/> Splash Goggles      | <input type="checkbox"/> Dust & Vapour Respirator     |
| <input type="checkbox"/> Face Shield                    | <input type="checkbox"/> Full Protective Suit         |
| <input type="checkbox"/> Airline Hood or Mask           | <input checked="" type="checkbox"/> Boots             |
| <input checked="" type="checkbox"/> Gloves              | <input type="checkbox"/> Other...                     |

## 9. Physical And Chemical Properties

#### Appearance and Odour

Clear colourless liquid with strong sharp odour

#### Density

0.81

#### Viscosity

< 0.5 at 40 oC CST

#### Vapour Pressure, mm Hg at 20°C

78

#### Vapour Density (Air=1)

#### Boiling Range, °C

79.3 to 80.5 ASTM D86

#### Flash Point °C Method

-7 (ASTM 56)

#### Evaporation Rate (BuAc=100)

2.7

#### % Volatile Matter (by weight)

2.5

**Melting Point/Freezing Point, °C**  
-87**Aniline Point, °C (Mixed)**  
NA**Refractive Index, @ 20°C**  
1.378 ASTM D1747**Residue On Evaporation, mg/100ml**  
9 (ppm) ASTM D1353

100

**Solubility in Water**  
29g in 100g of water**Aromatics, %**  
NA**Colour**  
<5 ASTM D1209 APHA  
**pH****Flammability Limit, %vol****Lower (LEL)**  
1.8 %**Upper (UEL)**  
11.5 %**Auto Ignition Temperature, °C**  
550NA = Not Applicable, NE = Not Established,  
NR = Not Regulated Against D = Decomposes

## 10. Stability And Reactivity

### Reactivity Data

MEK is considered to be stable under normal conditions, however exposure to the following should be avoided: Extreme heat, halogens, strong acids, alkalis, and oxidizers.

### Hazardous Decomposition Byproducts

Carbon Monoxide and Carbon Dioxide may form when heated to decomposition.

### Hazardous Polymerization

☒ Will Not Occur ☐ May Occur ☐ Other...

## 11. Toxicological Information

### Acute Effects of Overexposure

#### Ingestion

Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product is an oral irritant.

Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term ingestion.

#### Skin Contact

Repeated exposure may cause skin dryness and cracking.

Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. However product is believed to be mildly irritating, but is unlikely to cause anything more than mild transient discomfort.

Long Term Exposure: Repeated exposure may cause skin dryness or cracking.

#### Inhalation

Inhalation of vapours irritates the respiratory tract. May cause coughing, dizziness, dullness, and headache. Higher concentrations can produce central nervous system depression, narcosis, and unconsciousness.

#### Eye Contact

Irritating to eyes.

Short Term Exposure: This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Long Term Exposure: No data for health effects associated with long term eye exposure.

#### Delayed Effects

NR

#### Mutagenic Effects

NR

## 12. Ecological Information

This material is not expected to be toxic to aquatic life.

## 13. Disposal Considerations

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 vapours that are flammable and harmful. Ensure that empty packaging is allowed to dry.

## 14. Transport Information

IMCO No.	3.2	Highly Flammable
UN No.	1193	
HAZCHEM	3 Y E	
D/Goods Class	3.1B	
UN Packing Group	II	

## 15. Regulatory Information

HSR001190

## 16. Other Information

### Other Data.

IF PRINTED THIS MSDS SHEET IS UNCONTROLLED.

**Mainland Printing Inks** urges each customer or recipient of this MSDS to study it carefully to become aware of and the hazards associated with the product.

The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS. To promote safe handling, each customer or recipient should:

- (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards of safety;
- (2) furnish this same information to each of its customers for the product; and
- (3) request its customers to notify their employees, customers, and other users of the product of this information.

**NOTE:** The information and recommendations contained in this data sheet have been compiled from sources believed to be reliable and represent the best current opinion on the subject. No warranty, guarantee or representation is made by the company as to the absolute correctness or sufficiency of any representation contained in this data sheet and the company assumes no responsibility in connection therewith. Nor can it be assumed that all acceptable safety measures are contained in this data sheet or that other additional measures may not be required under particular or exceptional circumstances or conditions.