DATE OF ISSUE: October 2006 REPLACES: None

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

SUPPLIER

ACM Pty Ltd
ABN 55 064 142 212
Address: 47 Industrial Park Drive, Lilydale, Victoria 3140, AUSTRALIA
Telephone: +61 3 9735 8400
Emergency Telephone No: +61 3 9735 8400 (Monday to Friday 8:30 am – 5:00 pm.)

PRODUCT

Product Name: UPVC Priming Fluid
Other Names: Methyl ethyl ketone, ethyl methyl ketone, 2-butanone.
Manufacturer's Code: 207/208

USE

Cleaning and priming UPVC pipes and fittings. Applied manually with a cloth.

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION

NOHSC Classification: Hazardous Substance
ADG Classification: Dangerous Goods, Class 3
SUSDP Classification: Schedule 5 poison
HSNO Classification: 3.1B, 6.1E, 6.3B, 6.4A, 6.9B

RISK PHRASES

R36	Irritating to eyes.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S2	Keep out of reach of children.
S3	Keep in a cool place.
S16	Keep away from ignition sources - No smoking.

3. COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE

CHEMICAL ENTITY	CAS No	PROPORTION
Methyl ethyl ketone	78-93-3	> 60%
Other ingredients determined not to be hazardous	Not applicable	< 1%

4. FIRST AID MEASURES

FIRST AID

Swallowed: For advice, call a Poisons Information Centre or a doctor at once. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below the hips to prevent aspiration into lungs.

Eyes: If in eye, irrigate immediately with copious amounts of water for 15 minutes with eyelids held open. Seek medical advice immediately.

Skin: Wash affected areas with soap and copious quantities of water immediately. Remove contaminated clothing and footwear. Decontaminate footwear and wash clothing before reuse. Seek medical advice if skin irritation develops.

Inhaled: Remove victim to fresh air. Seek medical advice immediately if adverse symptoms such as respiratory irritation, dizziness or unconsciousness develop. If breathing has stopped, apply artificial respiration.

First Aid Facilities: Have eyewashes and safety showers available in the vicinity where exposure may occur.

ADVICE TO DOCTOR: Treat symptomatically. Look for signs of aspiration into lungs. The substance may cause chemical pneumonitis.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water fog, foam, dry chemical, carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS: Smoke, carbon monoxide, carbon dioxide and other noxious fumes.

PRECAUTIONS FOR FIRE FIGHTERS: This product is highly flammable. Keep containers cool with water spray to prevent rupture of container. Wear full protective equipment including self-contained breathing apparatus. The vapour of this product is heavier than air and will travel considerable distances. An ignition source within its range may explosively ignite the vapour and flash back along the vapour trail.

HAZCHEM CODE: 2[Y]E

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Wearing full PPE (see Section 8); isolate hazard area and restrict access. Increase ventilation. Remove all sources of ignition. Dyke spill to minimise environmental pollution. Take precautionary measures against static discharge. Inform emergency services if substance has spilled into sewers, drains or waterways.

CLEAN UP PROCEDURE: **Small Spills:** Wear safety goggles or face shield and butyl rubber gloves and wipe up spill with paper or rags. Allow product to dry outdoors or in a well ventilated area and dispose as general industrial waste.

Large spills: Notify fire brigade. Wearing full personal protective equipment, including self-contained breathing apparatus, contain spill with sand, earth or Vermiculite. Prevent run-off into drains or waterways. Bail or pump, using flameproof equipment, any free liquid into sealable metal containers. Collect absorbed material and also place it in into sealable metal drums. Seal containers and label them in accordance with the Hazardous Substances Labelling Code.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING

Practice sound industrial hygiene. Wear butyl rubber gloves, safety goggles and clothing that will minimise skin contact. Wash hands before work breaks And at the end of a shift. Remove contaminated clothing and protective equipment before entering eating areas. Keep away from ignition sources and guard against static electricity discharges.

STORAGE

Store in a cool dry place and out of direct sunlight. Store in a manner that will minimize fire or explosion risks. Guard against static electricity accumulation or discharge. Store in a bunded area, and if in excess of the regulatory quantity, in a flammable goods store. Do not store with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE STANDARDS

An Australian Exposure Standard for this mixture has been set by NOHSC and is given below:

Exposure Standard [NOHSC:1003(1995)]	TWA	STEL
Methyl ethyl ketone	150 ppm	300 ppm

BIOLOGICAL LIMIT VALUES

BEI = 2mg/L of urine (at the end of shift). (Ref. ACGIH)

ENGINEERING CONTROLS

Use only in well ventilated areas and with local exhaust ventilation. Maintain air concentrations below exposure standards.

PERSONAL PROTECTION EQUIPMENT

Use personal protective equipment that minimizes skin and eye contact, and vapour mists or aerosol inhalation. The type of protective equipment to be used depends largely the volume and the manner in which the substance is used. To ensure proper protection for any given situation, seek guidance from the following sources: protective clothing – AS 2919; gloves – AS 2161; eye protection – AS 1337; respiratory protection – AS 1715; feet protection – AS 2210. The suitability of each PPE for use with this substance should then be ascertained with the respective PPE suppliers.

Under condition of ordinary use and satisfactory engineering controls, wear safety goggles, butyl rubber gloves long sleeved overalls and sturdy work boots. In the event of a large spill or if working in confined spaces, or if mists, aerosols or vapours are generated and their airborne concentration is unknown wear, in the addition to the above, a full-face AS/NZ 1716 compliant cartridge type respirator with an organic vapour filter; combine it with a particulate filter in the presence of aerosols or mist (for selection guidance see AS/NZ 1715). If the respirator is the sole means of respiratory protection, use a full-face air supplied respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION & PROPERTIES

Appearance: A red or clear, thin liquid
Odour: Characteristic ketonic odour
pH: Not applicable
Vapour Pressure: 105 hPa at 20°C.
Vapour Density: >1 (Air=1)
Boiling Point: 80°C.
Melting Point: -86°C.
Solubility in Water: 292 g/L
Specific Gravity: ca. 0.805
Flash Point: -4°C. (Closed cup)
Flammability limits: L.E.L. = 1.8 % (by vol.)
U.E.L. = 11.5 % (by vol.)
Ignition temperature: 514°C.

OTHER PROPERTIES

No data.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY

This material is stable under normal ambient and anticipated storage and handling conditions.

CONDITIONS TO AVOID

Avoid excessive temperatures, ignition sources and contact with incompatible materials.

INCOMPATIBLE MATERIALS

Strong mineral acids, hydrogen peroxides, strong alkalies, oxidizing agents, and chloroform.

HAZARDOUS DECOMPOSITION PRODUCTS

No data

HAZARDOUS REACTIONS

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

This mixture has not been tested as a whole for its health effects. The toxicology data and health effects given below are those of the major components, of this preparation.

ACUTE HEALTH EFFECTS

Swallowed: Ingestion may cause headaches, nausea, vomiting and adverse effects to the central nervous system due to the presence of methyl ethyl ketone Large doses may result in coma and death. May pose a risk of aspiration, which can lead to chemical pneumonitis. Toxicity by this route is expected to be low. LD_{50} (rat) for methyl ethyl ketone is > 2600 mg/kg.

Eyes: Severe irritant due to MEK. May cause reddening of the eye and lachrymation.

Skin: slight skin irritant due to the presence of MEK. May cause some reddening, drying and rough chapped skin. Is absorbed through the skin. LD_{50} (rabbit) for MEK is >2000 mg/kg.

Inhaled: Irritant to the respiratory system. Inhalation of high vapour or mist concentrations may lead to dizziness, nausea and loss of consciousness and continued inhalation may lead to death.
LC_{50} (rat) MEK is 20 mg/L/4h.

CHRONIC HEALTH EFFECTS

Prolonged or repeated skin contact with MEK may defat the skin and could lead to irritant contact dermatitis. Liver and kidney damage have been reported for MEK in test animals, particularly at high exposure levels. Animal studies suggest that MEK may potentiate the toxic action of some other compounds such as n-hexane. None of the ingredients in this mixture is a sensitizer, mutagenic or carcinogenic.

DELAYED EFFECTS

No data.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Based on the data of the major raw materials used in this product, this mixture may have a low toxicity to aquatic organisms.

TOXICITY TO:	TEST DATA
	Methyl ethyl ketone
Fish	P. promelas LC_{50} = 3220 mg/L/96 h
Aqu. Invertebrates	Daphnia magna EC_{50} = 5090 mg/L/48 h.
Algae	Sc. quadricauda IC_5 ≥4300 mg/L/7 d.
Micro-organisms	Ps. putida EC_5 = 1150 mg/L/16 h.

PERSISTENCE AND DEGRADABILITY

The methyl ethyl ketone used in this mixture is readily biodegradable. Methyl ethyl ketone reduction: DOC >70%, BOD >60 %; BOD_5 to COD >50%.

MOBILITY

No bioaccumulation is expected. Methyl ethyl ketone: log p (o/w) = 0.29

13. DISPOSAL CONSIDERATIONS

This substance and its empty containers are classified as prescribed waste and may only be disposed of in accordance with applicable State and local regulations. These regulations vary from jurisdiction to jurisdiction and hence the user is counselled to seek advice from the local authority and classify the waste before considering disposal. The disposal information given below is a general guide and does not replace the requirement of the local regulations.

DISPOSAL — If possible recycle, otherwise dispose strictly in accordance with local industrial waste or environmental protection regulations. This substance may, if permitted by local authorities, be disposed of in an approved incineration facility. Send empty drums to a drum recycling organisation (ensure that the labels are legible and remain on the drums).

SPECIAL PRECAUTIONS — Do not allow this material to contaminate sewerage systems, soil, surface or ground water. The empty drums must not be reused, cut, welded drilled or subjected to a grinding operation or be stored in the vicinity of such operations.

When large amounts of this product need to be disposed of the services of a registered, professional waste disposal or recycling organisation is highly recommended.

14. TRANSPORT INFORMATION

This product has been classified as Dangerous Goods for the purposes of transport. Depending on the mode of transport, it must be shipped in accordance with the requirements of the Codes tabulated below.

TRANSPORT INFORMATION	ADG	NZS 5433	IMDG/IMO	ICAO/IATA
UN Number	1193	1193	1193	1193
Proper Shipping Name	ETHYL METHYL KETONE			
Class	3	3	3	3
Subsidiary Risk	None allocated	None allocated	None allocated	None allocated
Packing Group	II	II	II	II
Hazchem Code	2[Y]E	2[Y]E	Not applicable	Not applicable

15. REGULATORY INFORMATION

AICS — All ingredients are listed in AICS

SUSDP — This product is a Schedule 5 poison

HSNO GROUP STANDARD — This substance falls under the HSNO Surface Coatings and Colourants (Flammable) Group Standard 2006

NZS 5433 — Classified as Dangerous Goods according to NZS 5433:1999 "Transport of Dangerous Goods on Land".

16. OTHER INFORMATION

MSDS

Issue Number: 01
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Replaces Issue: None
Changes made to the previous issue: Not applicable

ACRONYMS

ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS: Australian Inventory of Chemical Substances.
CAS Number: Chemical Abstracts Service Registry Number
DG: Dangerous Goods
Hazchem Code: An emergency action code of numbers and letters, which gives information to emergency services.
HSNO: Hazardous Substances and New Organisms Act 1996
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
N.O.S.: Not otherwise specified.
NOHSC: National Health and Safety Commission.
NZS 5433: New Zealand Standard NZS 5433:1999 "Transport of Dangerous Goods on Land".
SUDP: Standard for the Uniform Scheduling of Drugs and Poisons.
UN Number: United Nations Number