

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFICATION

Trade name	Epoxy Solvent
Chemical Name & Synonyms	Dimethylketone; 2-propanone; dimethylketal, acetone
Manufacturer	Boatcraft Pacific Pty. Ltd.
	46 Chetwynd St., Loganholme
	Queensland 4129 Australia
Contact Telephone	07 3806 1944

UN No.	1090	Hazchem	2[Y]E
DG Class	3	Poisons Schedule	5
CAS No	67-64-1	Pkge Group	II

Intended usage	Solvent for the BoteCote epoxy system.
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Classified as hazardous according to the criteria of Worksafe Australia.

Risk Phrases	R11 Highly inflammable
Risk Phrases	R20/22 Harmful by inhalation and if swallowed
	R36/37 Irritant to eyes and respiratory system.
	R66 Repeated exposure may cause skin dryness and cracking
	R67Vapours may cause drowsiness and dizziness.
Safety Phrases	S2 Keep out of reach of children
	S7/9 Keep container tightly closed and in a well ventilated place.
	S16 Keep away from sources of ignition - no smoking
	S23 Do not breath vapour/spray.
	S29 Do not empty into drains.

Special Considerations for Repair And/Or Maintenance of Contaminated Equipment:

Empty containers retain residue (liquid and/or vapour) and are dangerous. Do not pressure cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Vapour is heavier than air – prevent concentration in hollows or sumps. Do not enter confined spaces where vapour may have collected. Keep containers closed when not in use.

SECTION 2. INGREDIENTS

Acetone	CAS No. 67-64-1	100%
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SECTION 3. PHYSICAL & EXPOSURE DATA

Appearance/odour	Colourless liquid, pleasant sweet odour
Boiling Range	56°C
Flash point	-20°C
Specific Gravity	0.79
Vapour Pressure	181 mm Hg at 20°C
Vapour Density (air = 1)	2.0 at 20°C
Volatile Component (% vol)	100%
pH	N/A
Solubility with water	Miscible
Autoignition temperature	465°C
Explosive limits	LEL: 2.15% UEL: 13%

Product Exposure Limits

TLV /TWA	500ppm 1185mg/cu m
STEL	1000ppm 2375mg/cu m

Toxicity and Irritation Data

LD(50) for ingestion (rat)	5800mg/kg
LC50 inhalation (rat) 8 hours	50100mg/cu m

SECTION 4. HEALTH HAZARD

No adverse effects are expected if the product is handled in accordance with this safety Data Sheet and with the product label.

Symptoms of Exposure: Acute and Chronic Effects

Ingestion:

Accidental swallowing is unlikely in the industrial setting. Swallowing can cause drunkenness or harmful central nervous system effects. Effects of a small intake may include excitation, euphoria, headache, dizziness, drowsiness, blurred vision, and fatigue. Drinking a large amount may lead to acute intoxication, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death. Aspiration into lungs may cause pneumonitis.

Eye contact:

Vapours may irritate the eyes. Liquid and mists may severely irritate or damage the eyes.

Skin contact:

Contact with skin may result in irritation and redness. Prolonged or repeated contact and heavy skin contamination may cause skin drying and cracking and/or dermatitis with redness, itching, and swelling. This may lead to possible secondary infection

Inhalation:

Vapour is moderately irritating to mucous membranes and respiratory tract. Inhalation of the vapour may result in drunkenness, (see effects of swallowing above) or headache, nausea, in-coordination, narcosis (sleepiness) and vomiting. Early signs or symptoms may occur at airborne levels of 1000 to 5000ppm.

Systemic and other effects:

Ongoing or repeated exposures at high concentrations may cause central nervous symptoms similar to "swallowed" above. Deliberate inhalation of the vapour (sniffing) is a known risk. Long term exposure by swallowing or repeated inhalation, may cause degenerative changes in the liver and other organs. Exposure to acetone in the work setting may add to any health effects caused by intake of alcoholic drinks, particularly in regard to narcotic and liver effects. Acetone is

not regarded as being carcinogenic and is not listed by NOHSC as a carcinogen or mutagen.

Emergency & First Aid Procedures

Ingestion:

If a minor amount has been accidentally swallowed, then, if conscious, give large amounts of water. Do not allow further work until fitness for duties is established. Do not attempt to induce vomiting or give anything by mouth to an unconscious person. Seek medical attention. If there are signs of drunkenness (intoxication or inebriation) then serious health effects may follow (depending on the amount swallowed or inhaled). Treat unconsciousness by placing the person in the coma position. Apply artificial respiration if breathing stops. Immediate medical attention should be sought and the affected person transferred and accompanied to the care of a doctor or hospital.

Eye contact:

Flush eye with running water for a minimum of 15 minutes. Seek medical attention promptly if irritation persists or any loss of vision occurs.

Skin contact:

Immediately remove contaminated clothing. Wash skin with water. Launder contaminated clothing before re-use.

Inhalation:

Remove promptly to fresh air. If there are signs of drunkenness (intoxication or inebriation) or respiratory irritation, dizziness, nausea or headache occurs, seek immediate medical attention. Treat unconsciousness by placing the person in the coma position. Apply artificial respiration if breathing stops. Immediate medical attention should be sought and the affected person transferred and accompanied to the care of a doctor or hospital.

Notes to physician: Treat symptomatically and as for narcotic substance.

SECTION 5. PERSONAL PROTECTION & HANDLING

Protective Equipment

Eyes	Goggles or face shield. Safety showers with eye wash facilities should be available.
Hands/feet	PVC or Neoprene gloves, full overalls, safety shoes
Respiratory	Ensure adequate ventilation. Wear organic vapour respirator or selfcontained breathing apparatus in enclosed areas.

Remove and wash all contaminated clothing and equipment.

Handling Procedures

Use in well ventilated areas away from all ignition sources. Intrinsically safe equipment only must be used in areas where this chemical is being used. The use of compressed air for filling, discharging, mixing or handling is prohibited due to the vapour hazard. Containers must be earthed to avoid generation of static charges when agitating or transferring product.

Engineering Controls

Ensure ventilation is adequate to maintain air concentration below Exposure Standards. Vapour is heavier than air – prevent concentration in hollows or sumps. Do not enter confined spaces where vapour may have collected. Keep all containers closed when not in use.

SECTION 6. FIRE & EXPLOSION

Stability

Stable.

Flammability

Highly flammable liquid. May form flammable mixtures with air. The vapour is heavier than air and may travel along the ground; distant ignition and flash back are possible. Run off to sewers and drains may cause explosions. Isolate for at least 800 metres in all directions if tanks or tankers are involved. The use of compressed air for filling, discharging, mixing or handling is prohibited due to the vapour hazard. All vessels must be earthed to avoid generation of static charges when agitating or transferring. Avoid all ignition sources. Intrinsically safe equipment is necessary in areas where this chemical is being used.

Hazardous Decomposition Products

Burning can produce carbon dioxide and water; incomplete combustion can produce carbon monoxide.

Hazardous Polymerisation

Will not occur.

Incompatibility

Will react with strong oxidising agents.

Fire Fighting

Use water to cool exposed containers. Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Spills and leaks may be washed away with copious volumes of water, fog or spray. For major fires or where the atmosphere is either oxygen deficient or contains unacceptable levels of combustion products, fire-fighters must wear self-contained breathing apparatus with full face-mask and protective clothing.

Extinguishing Media

Use water fog (or if unavailable fine water spray), dry chemical, carbon dioxide or alcohol stable foam.

SECTION 7. STORAGE & TRANSPORT

DG Class	3
Packaging group & Label	II
Suitable Containers	DG Cans
Storage procedures	<p>Store in tightly closed containers in cool, dry, isolated and well ventilated areas away from heat, sources of ignition and incompatibles. Store away from oxidising agents. Keep containers closed at all times – check regularly for leaks. Do not eat, drink or smoke in areas of use or storage. Observe State Regulations concerning the storage and handling of Dangerous Goods. Store with all precautions required for handling Flammable Liquids. The requirement of Australian Standards AS 1940 should be observed in addition to AS 1020, AS 1076, AS2380 and AS 3000.</p> <p>Not to be stored with explosives (Class 1), flammable gases in bulk (Class 2.1), poisonous gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidizing agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7).</p>
Transport All modes.	UN 1090 DG Class 3 Proper Shipping Name

	ACETONE Hazchem 2[Y]E
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SECTION 8. SPILLS & DISPOSAL

Minor spill	In the event of a spillage eliminate all sources of ignition and take measures to prevent static discharge – no smoking. Absorb into waste cloth or other suitable absorbent. Avoid contact with skin or eyes. Wash the cleaned up area with copious volumes of water to remove any trace amounts of product.
Major spill	In the event of a spillage eliminate all sources of ignition and take measures to prevent static discharge – no smoking. Contain with sand or earth, absorb with suitable absorbent, collect and seal in properly labeled drums for disposal. Prevent run off into drains or waterways. Use water spray to disperse vapour. Wash the cleaned up area with copious volumes of water to remove any trace amounts of product. Ventilate area well and ensure the atmosphere is safe before personnel return to the work area.
Disposal	Product must be contained and not disposed to sewerage systems, drains or waterways. Advise flammable nature. Dispose of all waste containers and used drums in accordance with local authority guidelines. Empty containers must be decontaminated by rinsing with water. Non-returnable containers should be de-gassed prior to disposal. Suitable for incineration by approved agent under controlled conditions if permitted by local authorities, otherwise disposal must be in accordance with local waste and environmental authority requirements.

SECTION 9. ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity to fish (acute): Blugil sunfish: LC50 8300ppm\96h

Toxicity to daphnia magna: LC50 10ppm\48 hours

Persistence and degradability:

Evaluation: Product is volatile and biodegradable

Mobility in soil:

Because of its volatility, this product is not regarded as creating longer term ecological risks.

SECTION 10. AUTHORISATION

Name	I. R. Phillips
Title	Director
Issue Date	