

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58
CD 2006/2 Page 1 of 13

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

SYNONYMS

"modified polyamide", hardener, catalyst, "curing agent"

PRODUCT USE

Used according to manufacturer's directions. Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. Do not return the mixed material to the original containers. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Hardener component of a two-part epoxy sealant. Hardener component of a two-part epoxy sealant.

SUPPLIER

Company: ITW Polymers & Fluids

Address:

100 Hassall Street

Wetherill Park

NSW, 2164

AUS

Telephone: +61 2 9757 8800

Emergency Tel: +61 2 9757 8800

Fax: 1800 803 596

QUEENSLAND DISTRIBUTOR

INTERNATIONAL TRADERS Pty Ltd

6/286 Evans Rd

Salisbury - BRISBANE - QLD 4107

Phone (07) 3272 9051 Fax (07) 3272 9744

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE

S5

RISK

Harmful in contact with skin and if swallowed.

Irritating to skin.

Risk of serious damage to eyes.

May cause SENSITISATION by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

May cause harm to the unborn child.

Possible risk of impaired fertility.

SAFETY

Keep container in a well ventilated place.

Avoid exposure - obtain special instructions before use.

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EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 2 of 13

Section 2 - HAZARDS IDENTIFICATION

Take off immediately all contaminated clothing.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
tall oil/ tetraethylenepentamine polyamides	68513-05-3	10-30
tetraethylenepentamine	112-57-2	<5
dibutyl phthalate	84-74-2	5-15
fillers		30-60
other ingredients not contributing to the classification		balance

Section 4 - FIRST AID MEASURES

SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 3 of 13

Section 4 - FIRST AID MEASURES

- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
 - Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
 - Oxygen is given as indicated.
 - The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
 - Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.
- Alkalis continue to cause damage after exposure.

INGESTION:

- Milk and water are the preferred diluents
- No more than 2 glasses of water should be given to an adult.
- Neutralising agents should never be given since exothermic heat reaction may compound injury.
- * Catharsis and emesis are absolutely contra-indicated.
* Activated charcoal does not absorb alkali.
* Gastric lavage should not be used.

Supportive care involves the following:

- Withhold oral feedings initially.
- If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

- Injury should be irrigated for 20-30 minutes.
- Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 4 of 13

Section 5 - FIRE FIGHTING MEASURES

- Use water delivered as a fine spray to control fire and cool adjacent area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Combustion products include, carbon dioxide (CO₂), nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

May emit poisonous fumes.

May emit corrosive fumes.

FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

None

Personal Protective Equipment

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Place in a suitable labelled container for waste disposal.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 5 of 13

Section 6 - ACCIDENTAL RELEASE MEASURES

- Collect recoverable product into labelled containers for recycling.
- Neutralise/decontaminate residue.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

dibutyl phthalate 500 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

dibutyl phthalate 250 mg/m³

other than mild, transient adverse effects

without perceiving a clearly defined odour is:

dibutyl phthalate 15 mg/m³

The threshold concentration below which most people.

will experience no appreciable risk of health effects:

dibutyl phthalate 5 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

Contains low boiling substance:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- Check for bulging containers.
- Vent periodically
- Always release caps or seals slowly to ensure slow dissipation of vapours.

DO NOT use aluminium, galvanised or tin-plated containers.

DO NOT USE brass or copper containers / stirrers.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 6 of 13

Section 7 - HANDLING AND STORAGE

- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid strong acids.

Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	Peak ppm	Peak mg/m3
Australia Exposure Standards	dibutyl phthalate		5				

The following materials had no OELs on our record under the following CAS or Chemwatch (CW) numbers
Epirez Saw Cut Sealant [D5-050] Hardener: No data available for CW:5137-58
tall oil/ tetraethylenepentamine polyamides: No data available for CAS:68513-05-3 CAS:68953-36-6
tetraethylenepentamine: No data available for CAS:112-57-2

EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (ppm)	Original IDLH Value (mg/m3)	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
dibutyl phthalate		9,300	4,000	

Not available. Refer to individual constituents.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 7 of 13

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENT DATA

TALL OIL/ TETRAETHYLENEMPENTAMINE POLYAMIDES:

None assigned. Refer to individual constituents.

TETRAETHYLENEMPENTAMINE:

No exposure limits set by NOHSC orACGIH.

DIBUTYL PHTHALATE:

In animal testing the reproductive system has been the prime target.

Exposure at or below the TLV has not caused either systemic effects or irritation in man.

PERSONAL PROTECTION

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

Wear chemical protective gloves, eg. PVC.

Wear safety footwear or safety gumboots, eg. Rubber.

NOTE: The material may produce skin sensitisation in predisposed individuals.

Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

ENGINEERING CONTROLS

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection.

Supplied-air type respirator may be required in special circumstances.

Correct fit is essential to ensure adequate protection.

An approved self contained breathing apparatus (SCBA) may be required in some situations.

Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 8 of 13

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Type of Contaminant: solvent, vapours, degreasing etc., evaporating from tank (in still air).	Air Speed: 0.25-0.5 m/s (50-100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

- 1: Room air currents minimal or favourable to capture
- 2: Contaminants of low toxicity or of nuisance value only.
- 3: Intermittent, low production.
- 4: Large hood or large air mass in motion

Upper end of the range

- 1: Disturbing room air currents
- 2: Contaminants of high toxicity
- 3: High production, heavy use
- 4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Grey paste with an amine-like odour; does not mix with water.

PHYSICAL PROPERTIES

Does not mix with water.

Sinks in water.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 9 of 13

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Alkaline.

Molecular Weight: Not Available
Melting Range (°C): Not Available
Solubility in water (g/L): Immiscible
pH (1 % solution): Not Available
Volatile Component (%vol): Not Available
Relative Vapour Density (air=1): Not Available
Lower Explosive Limit (%): Not Available
Autoignition Temp (°C): Not Available
State: Free-flowing Paste

Boiling Range (°C): Not Available
Specific Gravity (water=1): 1.4
pH (as supplied): Not Available
Vapour Pressure (kPa): Not Available
Evaporation Rate: Not Available
Flash Point (°C): >100 (PMCC)
Upper Explosive Limit (%): Not Available
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

Ingestion of amine epoxy-curing agents (hardeners) may cause severe abdominal pain, nausea, vomiting or diarrhoea. The vomitus may contain blood and mucous. If death does not occur within 24 hours there may be an improvement in the patients condition for 2-4 days only to be followed by the sudden onset of abdominal pain, boardlike abdominal rigidity or hypo-tension; this indicates that delayed gastric or oesophageal corrosive damage has occurred.

EYE

If applied to the eyes, this material causes severe eye damage.

The material may produce moderate eye irritation leading to inflammation.

Repeated or prolonged exposure to irritants may produce conjunctivitis.

Vapours of volatile amines irritate the eyes, causing excessive secretion of tears, inflammation of the conjunctiva and slight swelling of the cornea, resulting in "halos" around lights. This effect is temporary, lasting only for a few hours. However this condition can reduce the efficiency of undertaking skilled tasks, such as driving a car. Direct eye contact with liquid volatile amines may produce eye damage, permanent for the lighter species.

SKIN

Skin contact with the material may be harmful; systemic effects may result following absorption.

The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 10 of 13

Section 11 - TOXICOLOGICAL INFORMATION

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Amine epoxy-curing agents (hardeners) may produce primary skin irritation and sensitisation dermatitis in predisposed individuals. Cutaneous reactions include erythema, intolerable itching and severe facial swelling. Blistering, with weeping of serous fluid, and crusting and scaling may also occur. Individuals exhibiting "amine dermatitis" may experience a dramatic reaction upon re-exposure to minute quantities. Highly sensitive persons may even react to cured resins containing trace amounts of unreacted amine hardener. Minute quantities of air-borne amine may precipitate intense dermatological symptoms in sensitive individuals. Prolonged or repeated exposure may produce tissue necrosis.

INHALED

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Inhalation of amine vapours may cause irritation of the mucous membrane of the nose and throat, and lung irritation with respiratory distress and cough.

Swelling and inflammation of the respiratory tract is seen in serious cases; with headache, nausea, faintness and anxiety. There may also be wheezing. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing.

Before starting consider control of exposure by mechanical ventilation.

Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals showing "amine asthma". The literature records several instances of systemic intoxications following the use of amines in epoxy resin systems.

CHRONIC HEALTH EFFECTS

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Ample evidence exists, from results in experimentation, that developmental disorders are directly caused by human exposure to the material. There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby. Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Sensitised persons should not be allowed to work in situations where exposure may occur. Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 11 of 13

Section 11 - TOXICOLOGICAL INFORMATION

showing "amine asthma". The literature records several instances of systemic intoxications following the use of amines in epoxy resin systems.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

Section 12 - ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways.

Refer to data for ingredients, which follows:

TETRAETHYLENEPENTAMINE:

BCF<100: 4.2

"log Kow (Prager 1995):" -1.503

log Kow: -1.503

Koc: 3.6

Half-life (hr) air: 1.2

BCF: 4.2

Toxicity Fish: LC50(96)1.2-1.3mg/L

Toxicity invertebrate: LC50(48)0.43mg/L

DIBUTYL PHTHALATE:

"Hazardous Air Pollutant:" Yes

"Algae IC50 (72hr.) (mg/l):" 10-50 (24h)"

log Kow (Sangster 1997):" 4.72

"Half-life Soil - High (hours):" 552

"Half-life Soil - Low (hours):" 48

"Half-life Air - High (hours):" 74

"Half-life Air - Low (hours):" 7.4

"Half-life Surface water - High (hours):" 336"

Half-life Surface water - Low (hours):" 24"

Half-life Ground water - High (hours):" 552"

Half-life Ground water - Low (hours):" 48

"Aqueous biodegradation - Aerobic - High (hours):" 552"

Aqueous biodegradation - Aerobic - Low (hours):" 24"

Aqueous biodegradation - Anaerobic - High (hours):" 552

"Aqueous biodegradation - Anaerobic - Low (hours):" 48

"Aqueous biodegradation - Removal secondary treatment - High (hours):" 95%

"Aqueous biodegradation - Removal secondary treatment - Low (hours):" 35%

"Photolysis maximum light absorption - High (nano-m):" 274

"Photolysis maximum light absorption - Low (nano-m):" 224.5

"Aqueous photolysis half-life - Low (hours):" 3466"

Photooxidation half-life water - High (hours):" 1.10E+06"

Photooxidation half-life water - Low (hours):" 2.10E+04"

Photooxidation half-life air - High (hours):" 74"

Photooxidation half-life air - Low (hours):" 7.4

"First order hydrolysis half-life (hours):" 10

The phthalate esters are distributed throughout the environment ubiquitously. They are found complexed with fulvic acid components of the humic substances in soil and marine and estuarine waters. Fulvic acid appears to act as a solubiliser for the otherwise insoluble ester and serves to mediate its transport and mobilisation in water or immobilisation in soil. Phthalate esters

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 12 of 13

Section 12 - ECOLOGICAL INFORMATION

have been found in open ocean environments, in deep sea jelly fish, Atlantic herring and in mackerel. Phthalic ester plasticisers are clearly recognised as general contaminants of almost every soil and water ecosystem. In general they have low acute toxicity but the weight of evidence supporting their carcinogenicity is substantial. Other subtle chronic effects have also been reported. As little as 4 ug/ml in culture medium is lethal to chick embryo heart cells. This concentration is similar to that reached in human blood stored in vinyl plastic bags for as little as one day. Some phthalates (notably di-ethylhexyl phthalate and dibutyl phthalate) may also be detrimental to the reproduction of the water flea (*Daphnia magna*), zebra fish and guppies. As phthalates are present in drinking water and food, concerns have been raised about their long term effects on humans.

log Kow: 4.72

Koc: 160-6400

Half-life (hr) air: 18

Half-life (hr) H₂O surface water: 1824

Henry's atm m³ /mol: 4.60E-07

BOD 5 if unstated: 0.43

ThOD: 2.24

BCF: 5000

Log BCF: 1.07-1.5

Fish - *Salmo gairdneri* LC50 (96h): 1.6 mg/L.

Daphnia Magna EC50 (48h): 3.4 mg/L.

Algae - *Selenastrum capricornutum* EC50 (96h): 0.75 mg/L.

Phytotoxicity: Vapours of DBP at low concentrations can cause serious damage to plants.

Section 13 - DISPOSAL CONSIDERATIONS

If container can not be cleaned sufficiently well to ensure none of the original product remains or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM

None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN,IATA,IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

S5

REGULATIONS

tall oil/ tetraethylenepentamine polyamides (CAS: 68513-05-3) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)

continued...

EPIREZ SAW CUT SEALANT [D5-050] HARDENER

Chemwatch Material Safety Data Sheet

Issue Date: 16-Mar-2006

C317SC

CHEMWATCH 5137-58

CD 2006/2 Page 13 of 13

Section 15 - REGULATORY INFORMATION

Australia Poisons Schedule

tall oil/ tetraethylenepentamine polyamides (CAS: 68953-36-6) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

OECD Representative List of High Production Volume (HPV) Chemicals

tetraethylenepentamine (CAS: 112-57-2) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

Australia Poisons Schedule

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

dibutyl phthalate (CAS: 84-74-2) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance

CAS

Suggested codes

dibutyl phthalate

84-74-2

N;R51/53

Ingredients with multiple CAS Numbers

Ingredient Name

CAS

tall oil/

68513-05-3, 68953-36-6

tetraethylenepentamine

polyamides

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Issue Date: 16-Mar-2006

Print Date: 13-Jul-2006

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 1 of 12

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

SYNONYMS

"epoxide resin."

PROPER SHIPPING NAME

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains epoxy resin and dibutyl phthalate)

PRODUCT USE

Used according to manufacturer's directions. Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. Do not return the mixed material to the original containers. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Base component of a two-part epoxy sealant. Base component of a two-part epoxy sealant.

SUPPLIER

Company: ITW Polymers & Fluids
Address:
100 Hassall Street
Wetherill Park
NSW, 2164
AUS
Telephone: +61 2 9757 8800
Emergency Tel: +61 2 9757 8800
Fax: 1800 803 596

QUEENSLAND DISTRIBUTOR

INTERNATIONAL TRADERS Pty Ltd
6/286 Evans Rd
Salisbury - BRISBANE - QLD 4107
Phone (07) 3272 9051 Fax (07) 3272 9744

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE

S5

RISK

Harmful by inhalation.
Irritating to eyes and skin.
May cause SENSITISATION by skin contact.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
May cause harm to the unborn child.
Possible risk of impaired fertility.

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 2 of 12
Section 2 - HAZARDS IDENTIFICATION

SAFETY

Keep container in a well ventilated place.
Avoid exposure - obtain special instructions before use.
Keep container tightly closed.
Take off immediately all contaminated clothing.
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
bisphenol A/ epichlorohydrin resin	25068-38-6	30-60
dibutyl phthalate	84-74-2	5-15
other ingredients not contributing to the classification		balance

Section 4 - FIRST AID MEASURES

SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 3 of 12
Section 4 - FIRST AID MEASURES

necessary.

- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

- Combustible.
- Slight fire hazard when exposed to heat or flame.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).
- May emit acrid smoke.
- Mists containing combustible materials may be explosive.

Combustion products include, carbon dioxide (CO₂), aldehydes, nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

NOTE: Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke.

FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

2X

Personal Protective Equipment

Breathing apparatus.
Gas tight chemical resistant suit.
Limit exposure duration to 1 BA set 30 mins.

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 4 of 12

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

Environmental hazard - contain spillage.

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

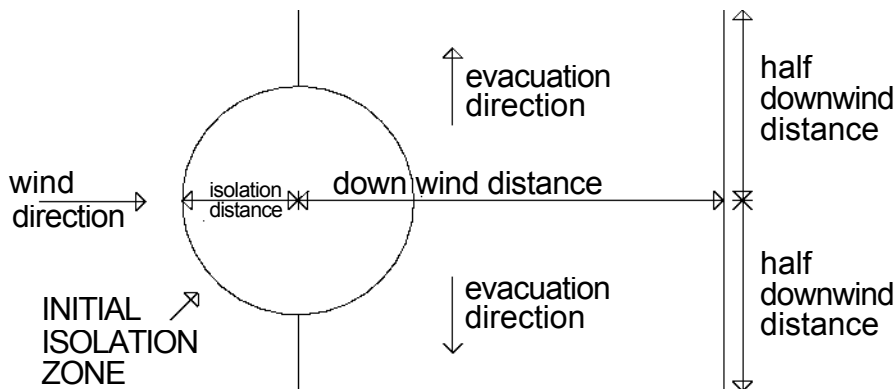
MAJOR SPILLS

Environmental hazard - contain spillage.
Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

PROTECTIVE ACTIONS FOR SPILL

PROTECTIVE ACTION ZONE



From IERG (Canada/Australia)

Isolation Distance	-
Downwind Protection Distance	10 metres
IERG Number	47

FOOTNOTES

1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This zone assumes that random changes in wind direction

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 5 of 12

Section 6 - ACCIDENTAL RELEASE MEASURES

confines the vapour plume to an area within 30 degrees on either side of the predominant wind direction, resulting in a crosswind protective action distance equal to the downwind protective action distance.

2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the spill and working away from the site in the downwind direction. Within the protective action zone a level of vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated and unable to take protective action and/or incurring serious or irreversible health effects.

3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a high probability of localised wind reversal may expose nearly all persons without appropriate protection to life-threatening concentrations of the material.

4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrican or box with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".

LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.

5 Guide 171 is taken from the US DOT emergency response guide book.

6 IERG information is derived from CAN UTEC -Transport Canada.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

bisphenol A/ epichlorohydrin resin	500 mg/m ³
dibutyl phthalate	500 mg/m ³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

bisphenol A/ epichlorohydrin resin	50 mg/m ³
dibutyl phthalate	250 mg/m ³

other than mild, transient adverse effects without perceiving a clearly defined odour is:

bisphenol A/ epichlorohydrin resin	30 mg/m ³
dibutyl phthalate	15 mg/m ³

The threshold concentration below which most people will experience no appreciable risk of health effects:

bisphenol A/ epichlorohydrin resin	10 mg/m ³
dibutyl phthalate	5 mg/m ³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 6 of 12

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

DO NOT allow clothing wet with material to stay in contact with skin.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m3 ppm	STEL	STEL mg/m3 ppm	Peak ppm	Peak mg/m3
Australia Exposure Standards	dibutyl phthalate		5				

The following materials had no OELs on our record under the following CAS or Chemwatch (CW) numbers
Epirez Saw Cut Sealant [D5-050] Compound: No data available for CW:5137-57
bisphenol A/ epichlorohydrin resin: No data available for CAS:25068-38-6

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 7 of 12

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (ppm)	Original IDLH Value (mg/m ³)	Revised IDLH Value (mg/m ³)	Revised IDLH Value (ppm)
dibutyl phthalate		9,300	4,000	

Not available. Refer to individual constituents.

INGREDIENT DATA

BISPHENOLA/ EPICHLOROXYDRIN RESIN:

DIBUTYL PHTHALATE:

In animal testing the reproductive system has been the prime target. Exposure at or below the TLV has not caused either systemic effects or irritation in man.

PERSONAL PROTECTION

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

- When handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butadiene rubber), boots and aprons.
 - DO NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin)
 - DO NOT use barrier creams containing emulsified fats and oils as these may absorb the resin; silicone-based barrier creams should be reviewed prior to use. Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber.
- NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 8 of 12

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Viscous white liquid with a characteristic odour; does not mix with water.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Sinks in water.

Molecular Weight: Not Available

Melting Range (°C): Not Available

Solubility in water (g/L): Immiscible

pH (1 % solution): Not Available

Volatile Component (%vol): Not Available

Relative Vapour Density (air=1): Not Available

Lower Explosive Limit (%): Not Available

Autoignition Temp (°C): Not Available

State: Liquid

Boiling Range (°C): Not Available

Specific Gravity (water=1): 1.5

pH (as supplied): Not Available

Vapour Pressure (kPa): Not Available

Evaporation Rate: Not Available

Flash Point (°C): >100 (PMCC)

Upper Explosive Limit (%): Not Available

Decomposition Temp (°C): Not Available

Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be damaging to the health of the individual.

EYE

There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain. There may be damage to the cornea. Unless treatment is prompt and adequate there may be permanent loss of vision. Conjunctivitis can occur following repeated exposure.

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 9 of 12

Section 11 - TOXICOLOGICAL INFORMATION

SKIN

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

INHALED

Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.

CHRONIC HEALTH EFFECTS

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Ample evidence exists, from results in experimentation, that developmental disorders are directly caused by human exposure to the material. There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby. Bisphenol A may have effects similar to female sex hormones and when administered to pregnant women, may damage the foetus. It may also damage male reproductive organs and sperm.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant: Not Determined

DO NOT discharge into sewer or waterways.

Refer to data for ingredients, which follows:

BISPHENOLA/ EPICHLOROHYDRIN RESIN:

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DIBUTYL PHTHALATE:

"Hazardous Air Pollutant:" Yes

"Algae IC50 (72hr.) (mg/l):" 10-50 (24h"

log Kow (Sangster 1997):" 4.72

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 10 of 12
Section 12 - ECOLOGICAL INFORMATION

"Half-life Soil - High (hours):" 552
"Half-life Soil - Low (hours):" 48
"Half-life Air - High (hours):" 74
"Half-life Air - Low (hours):" 7.4
"Half-life Surface water - High (hours):" 336"
Half-life Surface water - Low (hours):" 24"
Half-life Ground water - High (hours):" 552"
Half-life Ground water - Low (hours):" 48
"Aqueous biodegradation - Aerobic - High (hours):" 552"
Aqueous biodegradation - Aerobic - Low (hours):" 24"
Aqueous biodegradation - Anaerobic - High (hours):" 552
"Aqueous biodegradation - Anaerobic - Low (hours):" 48
"Aqueous biodegradation - Removal secondary treatment - High (hours):" 95%
"Aqueous biodegradation - Removal secondary treatment - Low (hours):" 35%
"Photolysis maximum light absorption - High (nano-m):" 274
"Photolysis maximum light absorption - Low (nano-m):" 224.5
"Aqueous photolysis half-life - Low (hours):" 3466"
Photooxidation half-life water - High (hours):" 1.10E+06"
Photooxidation half-life water - Low (hours):" 2.10E+04"
Photooxidation half-life air - High (hours):" 74"
Photooxidation half-life air - Low (hours):" 7.4
"First order hydrolysis half-life (hours):" 10

The phthalate esters are distributed throughout the environment ubiquitously. They are found complexed with fulvic acid components of the humic substances in soil and marine and estuarine waters. Fulvic acid appears to act as a solubiliser for the otherwise insoluble ester and serves to mediate its transport and mobilisation in water or immobilisation in soil. Phthalate esters have been found in open ocean environments, in deep sea jelly fish, Atlantic herring and in mackerel. Phthalic ester plasticisers are clearly recognised as general contaminants of almost every soil and water ecosystem. In general they have low acute toxicity but the weight of evidence supporting their carcinogenicity is substantial. Other subtle chronic effects have also been reported. As little as 4 ug/ml in culture medium is lethal to chick embryo heart cells. This concentration is similar to that reached in human blood stored in vinyl plastic bags for as little as one day. Some phthalates (notably di-ethylhexyl phthalate and dibutyl phthalate) may also be detrimental to the reproduction of the water flea (*Daphnia magna*), zebra fish and guppies. As phthalates are present in drinking water and food, concerns have been raised about their long term effects on humans.

log Kow: 4.72

Koc: 160-6400

Half-life (hr) air: 18

Half-life (hr) H₂O surface water: 1824

Henry's atm m³ /mol: 4.60E-07

BOD 5 if unstated: 0.43

ThOD: 2.24

BCF: 5000

Log BCF: 1.07-1.5

Fish - *Salmo gairdneri* LC50 (96h): 1.6 mg/L.

Daphnia Magna EC50 (48h): 3.4 mg/L.

Algae - *Selenastrum capricornutum* EC50 (96h): 0.75 mg/L.

Phytotoxicity: Vapours of DBP at low concentrations can cause serious damage to plants.

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet
Issue Date: 2-May-2006
C317SC

CHEMWATCH 5137-57
CD 2006/2 Page 11 of 12

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill. If container can not be cleaned sufficiently well to ensure none of the original product remains or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

Labels Required

miscellaneous

HAZCHEM

2X

Land Transport UNDG:

Dangerous Goods Class:	9	Subrisk:	None
UN Number:	3082	Packing Group:	III
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains epoxy resin and dibutyl phthalate)			

Air Transport IATA:

ICAO/IATA Class:	9	ICAO/IATA Subrisk:	None
UN/ID Number:	3082	Packing Group:	III
ERG Code:	9L		
Shipping Name: Environmentally hazardous substance, liquid, n.o.s. *			

Maritime Transport IMDG:

IMDG Class:	9	IMDG Subrisk:	None
UN Number:	3082	Packing Group:	III
EMS Number:	None	Marine Pollutant:	Not Determined
Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.			

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

S5

REGULATIONS

bisphenol A/ epichlorohydrin resin (CAS: 25068-38-6) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
Australia Poisons Schedule
OECD Representative List of High Production Volume (HPV) Chemicals

continued...

EPIREZ SAW CUT SEALANT [D5-050] COMPOUND

Chemwatch Material Safety Data Sheet

Issue Date: 2-May-2006

C317SC

CHEMWATCH 5137-57

CD 2006/2 Page 12 of 12

Section 15 - REGULATORY INFORMATION

dibutyl phthalate (CAS: 84-74-2) is found on the following regulatory lists;
Australia Inventory of Chemical Substances (AICS)
OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
dibutyl phthalate	84-74-2	N;R51/53

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