

# SBA 000 BUTYLCLAD MEMBRANE ADHESIVE

Chemwatch Material Safety Data Sheet  
Issue Date: Tue 4-Oct-2005

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

SBA 000 BUTYLCLAD MEMBRANE ADHESIVE

### SYNONYMS

"Manufacturer's Code SBA 000", "polychloroprene rubber adhesive cement"

### PROPER SHIPPING NAME

ADHESIVES

### PRODUCT USE

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. Adhesive used for bonding a variety of materials.

### SUPPLIER

Company: CRC Industries New Zealand Ltd  
Address:  
10 Waiohuru Road  
East Tamaki  
Auckland,  
NZL

Company: CRC Industries New Zealand Ltd  
Address:  
PO Box 58-121  
Greenmount  
Auckland,  
NZL  
Telephone: +64 9 274 5710  
Fax: +64 9 274 9696

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## Section 2 - HAZARDS IDENTIFICATION

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### STATEMENT OF HAZARDOUS NATURE

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

### POISONS SCHEDULE

NZS3

### RISK

Highly flammable.  
Harmful if swallowed.  
Irritating to eyes and skin.  
Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Possible risk of impaired fertility.  
Possible risk of harm to the unborn child.  
HARMFUL-May cause lung damage if swallowed.  
Vapours may cause drowsiness and dizziness.

### SAFETY

Keep container in a well ventilated place.

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Section 2 - HAZARDS IDENTIFICATION

Avoid exposure - obtain special instructions before use.  
Keep container tightly closed.  
This material and its container must be disposed of in a safe way.  
Take off immediately all contaminated clothing.  
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.  
If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).  
Use appropriate container to avoid environment contamination.  
Avoid release to the environment. Refer to special instructions/Safety data sheets.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
toluene	108-88-3	10-30
acetone	67-64-1	10-30
mixed hexanes aliphatic hydrocarbon solvent	64742-89-8.	10-30
polychloroprene rubbers		1-10
phenolic resins		1-10
performance additives		1-10

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- 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.
  - Seek medical advice.
- Avoid giving milk or oils.  
Avoid giving alcohol.

### 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.

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Section 4 - FIRST AID MEASURES

## 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.
- Transport to hospital, or doctor.

## NOTES TO PHYSICIAN

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

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## Section 5 - FIRE FIGHTING MEASURES

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### 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.
  - May be violently or explosively reactive.
  - Wear breathing apparatus plus protective gloves.
  - Prevent, by any means available, spillage from entering drains or water course.
  - Consider evacuation (or protect in place).
  - Fight fire from a safe distance, with adequate cover.
  - If safe, switch off electrical equipment until vapour fire hazard removed.
  - Use water delivered as a fine spray to control the 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.
- When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

### FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
  - Severe fire hazard when exposed to heat, flame and/or oxidisers.
  - Vapour may travel a considerable distance to source of ignition.
  - Heating may cause expansion or decomposition leading to violent rupture of containers.
  - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Combustion products include, carbon dioxide (CO<sub>2</sub>), hydrogen chloride, phosgene,

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Section 5 - FIRE FIGHTING MEASURES

other pyrolysis products typical of burning organic material.

## FIRE INCOMPATIBILITY

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

## HAZCHEM

3[Y]E

## Personal Protective Equipment

PERSONAL PROTECTION EQUIPMENT

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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## EMERGENCY PROCEDURES

### MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

### MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse /absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- 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.

### EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (ppm)	Revised IDLH Value (mg/m3)
Toluene	500	
Acetone	2,500 [LEL]	

### NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive

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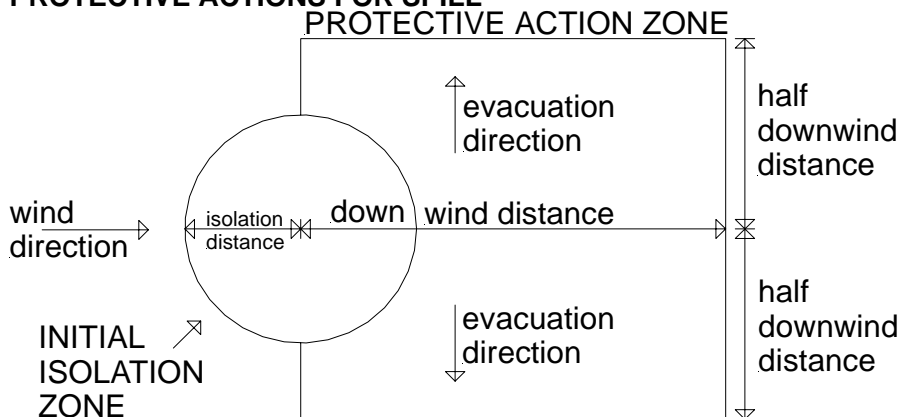
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## Section 6 - ACCIDENTAL RELEASE MEASURES

limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

### PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)

Isolation Distance	25 metres
Downwind Protection Distance	300 metres
IERG Number	14

### 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 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 128 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC - 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:  
toluene

1000 ppm

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## Section 6 - ACCIDENTAL RELEASE MEASURES

acetone	8500 ppm
mixed hexanes aliphatic hydrocarbon solvent	8500 ppm

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

toluene	300 ppm
acetone	8500 ppm
mixed hexanes aliphatic hydrocarbon solvent	8500 ppm

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

toluene	50 ppm
acetone	1000 ppm
mixed hexanes aliphatic hydrocarbon solvent	1000 ppm

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

toluene	50 ppm
acetone	1000 ppm
mixed hexanes aliphatic hydrocarbon solvent	1000 ppm

American Industrial Hygiene Association (AIHA)

Ingredients considered according exceed 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

- 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, heat or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Vapour may ignite on pumping or pouring due to static electricity.
- DO NOT use plastic buckets.
- Earth and secure metal containers when dispensing or pouring product.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- Keep containers securely sealed.
- 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

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Section 7 - HANDLING AND STORAGE

to ensure safe working conditions.  
DO NOT allow clothing wet with material to stay in contact with skin.

## SUITABLE CONTAINER

Packing as supplied by manufacturer. Plastic containers may only be used if approved for flammable liquid. Check that containers are clearly labelled and free from leaks.

## STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents.

## STORAGE REQUIREMENTS

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry well ventilated area.
- 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/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>	Peak ppm	Peak mg/m <sup>3</sup>
Australian Exposure Standards	Toluene	50	191	150	574		
Australian Exposure Standards	Acetone	500	1,185	1,000	2,375		
None assigned. Refer to individual constituents.							

### ODOUR SAFETY FACTOR (OSF)

OSF=0.15 (mixed hexanes aliphatic hydrocarbon solvent)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
B	26-550	As "A" for 50-90% of persons being distracted
C	1-26	As "A" for less than 50%

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

		of persons being distracted
D	0.18-1	10-50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As "D" for less than 10% of persons aware of being tested

### REPRODUCTIVE HEALTH GUIDELINES

Established occupational exposure limits frequently do not take into consideration reproductive end points that are clearly below the thresholds for other toxic effects. Occupational reproductive guidelines (ORGs) have been suggested as an additional standard. These have been established after a literature search for reproductive no-observed-adverse effect-level (NOAEL) and the lowest-observed-adverse-effect-level (LOAEL). In addition the US EPA's procedures for risk assessment for hazard identification and dose-response assessment as applied by NIOSH were used in the creation of such limits.

Ingredient	ORG	UF	Endpoint	CR	TLV Adeq
toluene	9.6 mg/m <sup>3</sup>	10	D	NA	-

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen  
Jankovic J., Drake F.: A Screening Method for Occupational Reproductive  
American Industrial Hygiene Association Journal 57: 641-649 (1996).

### INGREDIENT DATA

#### TOLUENE:

Odour Threshold Value: 0.16-6.7 (detection), 1.9-69 (recognition)

NOTE: Detector tubes measuring in excess of 5 ppm, are available.

High concentrations of toluene in the air produce depression of the central nervous system (CNS) in humans. Intentional toluene exposure (glue-sniffing) at maternally-intoxicating concentration has also produced birth defects. Foetotoxicity appears at levels associated with CNS narcosis and probably occurs only in those with chronic toluene-induced kidney failure. Exposure at or below the recommended TLV-TWA is thought to prevent transient headache and irritation, to provide a measure of safety for possible disturbances to human reproduction, the prevention of reductions in cognitive responses reported amongst humans inhaling greater than 40 ppm, and the significant risks of hepatotoxic, behavioural and nervous system effects (including impaired reaction time and incoordination). Although toluene/ethanol interactions are well recognised, the degree of protection afforded by the TLV-TWA among drinkers is not known.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### ACETONE:

Odour Threshold Value: 3.6 ppm (detection), 699 ppm (recognition)

Saturation vapour concentration: 237000 ppm @ 20 C

NOTE: Detector tubes measuring in excess of 40 ppm, are available.

Exposure at or below the recommended TLV-TWA is thought to protect the worker against mild irritation associated with brief exposures and the bioaccumulation, chronic irritation of the respiratory tract and headaches associated with long-term acetone exposures. The NIOSH REL-TWA is substantially lower and has taken into account slight irritation experienced by volunteer subjects at 300 ppm. Mild irritation to acclimatised workers begins at about 750 ppm - unacclimatised subjects will experience irritation at about 350-500 ppm but acclimatisation can occur rapidly. Disagreement between the peak bodies is based largely on the view by ACGIH that widespread use of acetone, without evidence of significant adverse health effects at higher concentrations, allows acceptance of a higher limit.

Half-life of acetone in blood is 3 hours which means that no adjustment for shift-length has to be made with reference to the standard 8 hour/day, 40 hours per week because body clearance occurs within any shift with low potential for accumulation.

A STEL has been established to prevent excursions of acetone vapours that could cause depression of the central nervous system.

### MIXED HEXANES ALIPHATIC HYDROCARBON SOLVENT:

Odour Threshold Value: 65 ppm (as n-hexane)  
for alkanes (C5-C8)

CEL TWA: 350 mg/m<sup>3</sup> (10 hours); STEL: 1800 mg/m<sup>3</sup> (15 minutes) - NIOSH.

## 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.

### OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Ensure there is ready access to a safety shower.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	AX-AUS	-
1000	50	-	AX-AUS
5000	50	Airline *	-
5000	100	-	AX-2
10000	100	-	AX-3
	100+		Airline**

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

### ENGINEERING CONTROLS

For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Honey/ red coloured highly flammable viscous liquid with a solvent odour; does not mix with water.

### PHYSICAL PROPERTIES

Liquid.  
Does not mix with water.  
Floats on water.

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

Boiling Range (°C): 54  
Specific Gravity (water=1): 0.825-0.835  
pH (as supplied): Not Applicable  
Vapour Pressure (kPa): 24.1 @ 20 C  
Evaporation Rate: Not Available  
Flash Point (°C): -15  
Upper Explosive Limit (%): 7  
Decomposition Temp (°C): Not Available

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

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

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## Section 11 - TOXICOLOGICAL INFORMATION

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### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

There is some evidence to suggest that this material can cause, if swallowed once, irreversible damage of organs.

Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed.

Ingestion may result in nausea, pain and vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

##### 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.

##### SKIN

This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition.

##### 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.

Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

##### CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].

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Section 11 - TOXICOLOGICAL INFORMATION

## TOXICITY AND IRRITATION

Not available. Refer to individual constituents.  
unless otherwise specified data extracted from RTECS - Register of Toxic Effects  
of Chemical Substances

### TOLUENE:

#### TOXICITY

Oral (human) LDLo: 50 mg/kg  
Oral (rat) LD50: 636 mg/kg  
Inhalation (human) TClO: 100 ppm  
Inhalation (man) TClO: 200 ppm  
Inhalation (rat) LC50: >26700 ppm/1h  
Dermal (rabbit) LD50: 12124 mg/kg  
Reproductive effector in rats  
The substance is classified by IARC as Group 3:  
NOT classifiable as to its carcinogenicity to humans.  
Evidence of carcinogenicity may be inadequate or limited in animal testing.

#### IRRITATION

Skin (rabbit): 20 mg/24h-Moderate  
Skin (rabbit): 500 mg - Moderate  
Eye (rabbit): 0.87 mg - mild  
Eye (rabbit): 2 mg/24h - SEVERE  
Eye (rabbit): 100 mg/30sec - mild

### ACETONE:

#### TOXICITY

Oral (man) TDLo: 2857 mg/kg  
Oral (rat) LD50: 5800 mg/kg  
Inhalation (human) TClO: 500 ppm  
Inhalation (man) TClO: 12000 ppm/4 hr  
Inhalation (man) TClO: 10 mg/m<sup>3</sup>/6 hr  
Inhalation (rat) LC50: 50100 mg/m<sup>3</sup>/8 hr  
Dermal (rabbit) LD50: 20000 mg/kg

#### IRRITATION

Eye (human): 500 ppm - irritant  
Eye (rabbit): 3.95 mg - SEVERE  
Eye (rabbit): 20mg/24hr -Moderate  
Skin (rabbit):395mg (open) - mild  
Skin (rabbit): 500 mg/24hr - mild

### MIXED HEXANES ALIPHATIC HYDROCARBON SOLVENT:

#### TOXICITY

Oral (rat) LD50: 28710 mg/kg  
Inhalation (human) TClO: 190 ppm/8W  
Inhalation (rat) LD50: 48000 ppm/4h

#### IRRITATION

Eye(rabbit): 10 mg - mild

## Section 12 - ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways.  
Refer to data for ingredients, which follows:

### TOLUENE:

Hazardous Air Pollutant: Yes  
Fish LC50 (96hr.) (mg/l): 7.3-22.8  
BCF<100: 13.2 (EELS)  
log Kow (Sangster 1997): 2.73  
log Pow (Verschuereen 1983): 2.69  
BOD5: 5%  
COD: 21%  
ThOD: 3.13  
Half-life Soil - High (hours): 528  
Half-life Soil - Low (hours): 96  
Half-life Air - High (hours): 104  
Half-life Air - Low (hours): 10  
Half-life Surface water - High (hours): 528  
Half-life Surface water - Low (hours): 96  
Half-life Ground water - High (hours): 672

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Section 12 - ECOLOGICAL INFORMATION

Half-life Ground water - Low (hours): 168  
Aqueous biodegradation - Aerobic - High (hours): 528  
Aqueous biodegradation - Aerobic - Low (hours): 96  
Aqueous biodegradation - Anaerobic - High (hours): 5040  
Aqueous biodegradation - Anaerobic - Low (hours): 1344  
Aqueous biodegradation - Removal secondary treatment - High (hours): 75%  
Photolysis maximum light absorption - High (nano-m): 268  
Photolysis maximum light absorption - Low (nano-m): 253.5  
Photooxidation half-life water - High (hours): 1284  
Photooxidation half-life water - Low (hours): 321  
Photooxidation half-life air - High (hours): 104  
Photooxidation half-life air - Low (hours): 10

log Kow : 2.1-3  
log Koc : 1.12-2.85  
Koc : 37-250  
log Kom : 1.39-2.89  
Half-life (hr) air : 2.4-104  
Half-life (hr) H2O surface water : 5.55-528  
Half-life (hr) H2O ground : 168-2628  
Half-life (hr) soil : <48-240  
Henry's Pa m<sup>3</sup> /mol: 518-694  
Henry's atm m<sup>3</sup> /mol: 5.94E-03  
BOD 5 if unstated: 0.86-2.12,5%  
COD : 0.7-2.52,21-27%  
ThOD : 3.13  
BCF : 1.67-380  
Log BCF : 0.22-3.28

## ACETONE:

Fish LC50 (96hr.) (mg/l): 8300-40000  
Daphnia magna EC50 (48hr.) (mg/l): 10  
log Kow (Prager 1995): -0.24  
log Kow (Sangster 1997): -0.24  
log Pow (Verschuereen 1983): -0.24  
BOD5: 122%  
ThOD: 72  
Half-life Soil - High (hours): 168  
Half-life Soil - Low (hours): 24  
Half-life Air - High (hours): 2790  
Half-life Air - Low (hours): 279  
Half-life Surface water - High (hours): 168  
Half-life Surface water - Low (hours): 24  
Half-life Ground water - High (hours): 336  
Half-life Ground water - Low (hours): 48  
Aqueous biodegradation - Aerobic - High (hours): 168  
Aqueous biodegradation - Aerobic - Low (hours): 24  
Aqueous biodegradation - Anaerobic - High (hours): 672  
Aqueous biodegradation - Anaerobic - Low (hours): 96  
Aqueous biodegradation - Removal secondary treatment - High (hours): 75%  
Aqueous biodegradation - Removal secondary treatment - Low (hours): 54%  
Aqueous photolysis half-life - High (hours): 270  
Photooxidation half-life water - High (hours): 3.97E+06  
Photooxidation half-life water - Low (hours): 9.92E+04  
Photooxidation half-life air - High (hours): 2790  
Photooxidation half-life air - Low (hours): 279

continued...



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Section 12 - ECOLOGICAL INFORMATION

log Kow: -0.24  
Half-life (hr) air: 312-1896  
Half-life (hr) H<sub>2</sub>O surface water: 20  
Henry's atm m<sup>3</sup> /mol: 3.67E-05  
BOD 5 if unstated: 0.31-1.76,46-55%  
COD: 1.12-2.07  
ThOD: 2.2  
BCF: 0.69  
Toxicity Fish: LC50(96) 5540-13000mg/L  
Toxicity invertebrate: cell mult. inhib. 28-7500mg/L  
Bioaccumulation: not sig  
Nitrif. inhib.: 75% decr. at 840mg/L  
Anaerobic effects: sig degrad  
Degradation Biological: sig  
processes Abiotic: Rxn OH\*, photodissoc  
In air, acetone is lost by photolysis and reaction with photochemically produced hydroxyl radicals; the estimated half-life of these combined processes is about 22 days. The relatively long half-life allows acetone to be transported long distances from its emission source.  
Acetone is highly soluble and slightly persistent in water, with a half-life of about 20 hours; it is minimally toxic to aquatic life.  
Acetone released to soil volatilises although some may leach into the ground where it rapidly biodegrades.  
Acetone does not concentrate in the food chain.  
Drinking Water Standard: none available.  
Soil Guidelines: none available.  
Air Quality Standards: none available.

## Section 13 - DISPOSAL CONSIDERATIONS

Puncture containers to prevent re-use and bury at an authorised landfill.

## Section 14 - TRANSPORTATION INFORMATION



Shipping Name:  
ADHESIVES containing flammable liquid  
Dangerous Goods Class: 3  
Subrisk: None  
UN/NA Number: 1133  
Packing Group: II  
Labels Required: flammable liquid  
Additional Shipping Information:  
International Transport Regulations:  
IMO Dangerous Goods class: 3  
IMO Packing group: II

continued...



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IATA Dangerous goods class: 3  
Cargo Instructions: 307  
Cargo Max: 60 L  
Passenger Instructions: 305  
Passenger Max: 5L  
Special Provisions: A3, None

## HAZCHEM

3[Y]E

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## Section 15 - REGULATORY INFORMATION

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### POISONS SCHEDULE

NZS3

### REGULATIONS

toluene (CAS: 108-88-3) is found on the following regulatory lists  
Australian Inventory of Chemical Substances (AICS)  
Australian Poisons Schedule  
Australia High Volume Industrial Chemical List (HVICL)

acetone (CAS: 67-64-1) is found on the following regulatory lists  
Australian Inventory of Chemical Substances (AICS)  
Australian Poisons Schedule  
Australia High Volume Industrial Chemical List (HVICL)

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## Section 16 - OTHER INFORMATION

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