

DRY-TREAT STAIN PROOF (US2)

Chemwatch Material Safety Data Sheet
Issue Date: 16-May-2006
A317EC

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DRY-TREAT STAIN PROOF (US2)

SYNONYMS

"stain preventer", "masonry sealant"

PROPER SHIPPING NAME

FLAMMABLE LIQUID, N.O.S.

PRODUCT USE

Water and stain protection for masonry substrate.

SUPPLIER

Company: Dry-Treat Inc.

Address:

1201 Orange Street Suite 600

One Commerce Center

Willmington DE 19801

USA

Telephone: 1 866 667 5119

Telephone: +61 2 9954 3211

Emergency Tel: CHEM-TEL (800) 255-3924 Outside USA

(813) 248-0585

Emergency Tel: +61 2 9954 3211

Fax: +61 2 9954 3162

Company: Dry-Treat Inc.

Address:

PO Box 551

St Leonards

NSW, 1590

AUSTRALIA

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

Highly flammable.

Irritating to eyes and skin.

Harmful to aquatic organisms.

HARMFUL-May cause lung damage if swallowed.

Vapours may cause drowsiness and dizziness.

SAFETY

Do not breathe gas/fumes/vapour/spray.

Wear eye/face protection.

Use only in well ventilated areas.

Keep container in a well ventilated place.

Keep container tightly closed.

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Section 2 - HAZARDS IDENTIFICATION

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	%
acetone	67-64-1	>60
alkylalkoxysilane		10-30
n-butyl acetate	123-86-4	1-10

Section 4 - FIRST AID MEASURES

SWALLOWED

If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

- 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.

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.
- 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 necessary.

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Section 4 - FIRST AID MEASURES

- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

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.

For acute or short term repeated exposures to acetone:

- Symptoms of acetone exposure approximate ethanol intoxication.
- About 20% is expired by the lungs and the rest is metabolised. Alveolar air half-life is about 4 hours following two hour inhalation at levels near the Exposure Standard; in overdose, saturable metabolism and limited clearance, prolong the elimination half-life to 25-30 hours.
- There are no known antidotes and treatment should involve the usual methods of decontamination followed by supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Management:

Measurement of serum and urine acetone concentrations may be useful to monitor the severity of ingestion or inhalation.

Inhalation Management:

- Maintain a clear airway, give humidified oxygen and ventilate if necessary.
- If respiratory irritation occurs, assess respiratory function and, if necessary, perform chest X-rays to check for chemical pneumonitis.
- Consider the use of steroids to reduce the inflammatory response.
- Treat pulmonary oedema with PEEP or CPAP ventilation.

Dermal Management:

- Remove any remaining contaminated clothing, place in double sealed, clear bags, label and store in secure area away from patients and staff.
- Irrigate with copious amounts of water.
- An emollient may be required.

Eye Management:

- Irrigate thoroughly with running water or saline for 15 minutes.
- Stain with fluorescein and refer to an ophthalmologist if there is any uptake of the stain.

Oral Management:

- No GASTRIC LAVAGE OR EMETIC
- Encourage oral fluids.

Systemic Management:

- Monitor blood glucose and arterial pH.
- Ventilate if respiratory depression occurs.
- If patient unconscious, monitor renal function.
- Symptomatic and supportive care.

The Chemical Incident Management Handbook:

Guy's and St. Thomas' Hospital Trust, 2000

BIOLOGICAL EXPOSURE INDEX

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Sampling Time	Index	Comments
Acetone in urine	End of shift	50 mg/L	NS

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Section 4 - FIRST AID MEASURES

NS: Non-specific determinant; also observed after exposure to other material.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable 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 (CO₂), 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

Breathing apparatus.
Chemical splash suit.

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Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

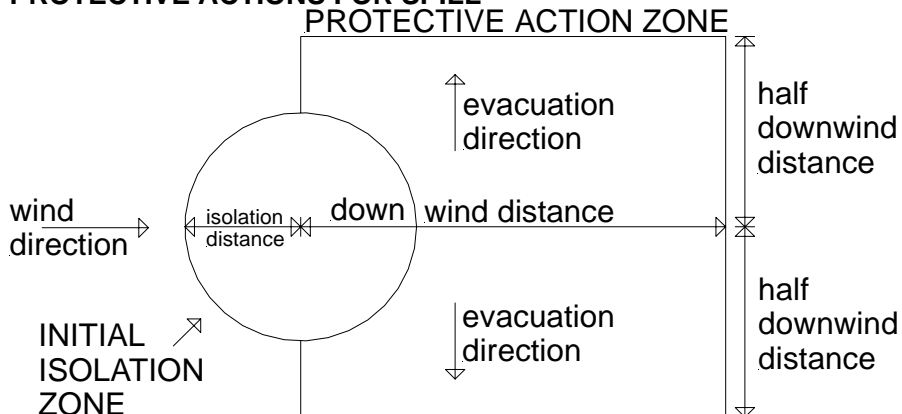
MINOR SPILLS

- 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.

PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)
Isolation Distance
Downwind Protection Distance
IERG Number

25 metres
300 metres
14

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Section 6 - ACCIDENTAL RELEASE MEASURES

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:

acetone	8500 ppm
n-butyl acetate	3000 ppm

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

acetone	8500 ppm
n-butyl acetate	200 ppm

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

acetone	1000 ppm
n-butyl acetate	5 ppm

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

acetone	1000 ppm
n-butyl acetate	5 ppm

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%		

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Section 6 - ACCIDENTAL RELEASE MEASURES

else $\geq 10\%$
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

- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- 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, 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 to ensure safe working conditions.

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.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
 - For materials with a viscosity of at least 2680 cSt. (23 deg. C)
 - For manufactured product having a viscosity of at least 250 cSt. (23 deg. C)
 - Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C)
 - (i) : Removable head packaging;
 - (ii) : Cans with friction closures and
 - (iii) : low pressure tubes and cartridges may be used.
 - Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages
 - In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances

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Section 7 - HANDLING AND STORAGE

are not incompatible with the plastic.

STORAGE INCOMPATIBILITY

Acetone reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline surfaces.

Avoid strong acids, bases.

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 ³	STEL ppm	STEL m5/m ³	Peak ppm	Peak mg/m ³
Australia Exposure Standards	acetone	500	1185	1000	2375		
Australia Exposure Standards	n-butyl acetate	150	713	200	950		

The following materials had no OELs on our record under the following CAS or Chemwatch (CW) numbers
Dry-Treat Stain Proof (US2): No data available for CW:4671-32

EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (ppm)	Original IDLH Value (mg/m ³)	Revised IDLH Value (mg/m ³)	Revised IDLH Value (ppm)
acetone	20,000			2,500 [LEL]
n-butyl acetate	10,000			1,700 [LEL]

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

Not available. Refer to individual constituents.

INGREDIENT DATA

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

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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.

N-BUTYL ACETATE:

Odour Threshold Value: 0.0063 ppm (detection), 0.038-12 ppm (recognition)

Exposure at or below the recommended TLV-TWA is thought to prevent significant irritation of the eyes and respiratory passages as well as narcotic effects. In light of the lack of substantive evidence regarding teratogenicity and a review of acute oral data a STEL is considered inappropriate.

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

Suitability and durability of glove type is dependent on usage. Factors such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity,

are important in the selection of gloves.

Wear chemical protective gloves, eg. PVC.

Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

- Overalls.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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

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

Flammable liquid with a characteristic odour; partly mixes with water.

PHYSICAL PROPERTIES

Liquid.

Molecular Weight: Not Applicable
Melting Range (°C): Not Available
Solubility in water (g/L): Partly Miscible
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): Not Available
pH (as supplied): Not Applicable
Vapour Pressure (kPa): Not Available
Evaporation Rate: Not Available
Flash Point (°C): Not Available
Upper Explosive Limit (%): Not Available
Decomposition Temp (°C): Not Available
Viscosity: Not Available

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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.
Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733).
Large ingestion may produce coma, respiratory depression, and rarely convulsions.

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

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

INHALED

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.
Ketone vapours irritate the nose, throat and mucous membrane. High concentrations depress the central nervous system, causing headache, vertigo, poor concentration, sleep and failure of the heart and breathing. Some ketones can cause multiple nerve disorders, inducing "pins and needles" and weakness in the limbs.
Inhalation of acetone causes central nervous system depression, light-headedness, incoherent speech, inco-ordination, stupor, low blood pressure, fast pulse, metabolic acidosis, high blood sugar and ketosis. Rarely, convulsions and tubular necrosis may be evident. Other symptoms of exposure may include restlessness, headache, vomiting, low blood pressure and rapid and

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Section 11 - TOXICOLOGICAL INFORMATION

irregular pulse, eye and throat irritation, weakness of the legs and dizziness. Inhalation of high concentrations may produce dryness of the mouth and throat, nausea, inco-ordinated movement, loss of co-ordinated speech, drowsiness, and in severe cases, coma. Inhalation of acetone vapours over long periods causes irritation of the airways, coughing and headache. Rats exposed to a concentration of 5.22% for 1 hour showed clear signs of sleepiness; deaths occurred at 12.66%.

CHRONIC HEALTH EFFECTS

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Workers exposed to acetone for long periods showed inflammation of the airways, stomach and small bowel, attacks of giddiness and loss of strength. Exposure to acetone may enhance the liver toxicity of chlorinated solvents. Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents. Large amounts of ethanol taken in pregnancy may result in "foetal alcohol syndrome", characterised by delay in mental and physical development, learning difficulties, behavioural problems and small head size. A small number of people develop allergic reactions to ethanol, which include eye infections, skin swelling, shortness of breath, and itchy rashes with blisters.

TOXICITY AND IRRITATION

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

ACETONE:

TOXICITY

Oral (man) TDL_o: 2857 mg/kg

Oral (rat) LD₅₀: 5800 mg/kg

Inhalation (human) TCL_o: 500 ppm

Inhalation (man) TCL_o: 12000 ppm/4 hr

Inhalation (man) TCL_o: 10 mg/m³/6 hr

Inhalation (rat) LC₅₀: 50100 mg/m³/8 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

N-BUTYL ACETATE:

TOXICITY

Oral (rat) LD₅₀: 13100 mg/kg

Dermal (rabbit) LD₅₀: 3200 mg/kg*

Inhalation (human) TCL_o: 200 ppm

Inhalation (rat) LC₅₀: 2000 ppm/4H

* [PPG]

IRRITATION

Skin (rabbit): 500 mg/24h-Moderate

Eye (rabbit): 20 mg (open)-SEVERE

Eye (rabbit): 20 mg/24h - Moderate

Eye (human): 300 mg

Section 12 - ECOLOGICAL INFORMATION

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

ACETONE:

continued...

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Section 12 - ECOLOGICAL INFORMATION

"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 (Verschueren 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

DO NOT discharge into sewer or waterways.

log Kow: -0.24

Half-life (hr) air: 312-1896

Half-life (hr) H₂O surface water: 20

Henry's atm m³ /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.

continued...

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Section 12 - ECOLOGICAL INFORMATION

N-BUTYL ACETATE:

"Fish LC50 (96hr.) (mg/l):" 18
"Daphnia magna EC50 (48hr.) (mg/l):" 44
"log Kow (Prager 1995):" 1.82
"Fish LC50 (96hr.) (mg/l):" 100-185
"Daphnia magna EC50 (48hr.) (mg/l):" 44
"Algae IC50 (72hr.) (mg/l):" 280
"log Kow (Sangster 1997):" 1.78
COD: 78%

log Kow : 1.79-2.06
Half-life (hr) air: 144
Half-life (hr) H2O surface water: 178-27156
Henry's atm m³ /mol: 3.20E-04
BOD 5 if unstated: 0.15-1.02,7%
COD: 78%
ThOD: 2.207
BCF: 4-14
Toxicity Fish: LC50(96)100-185ppm
Toxicity invertebrate: cell mult. inhib.78-3700mg/L
Effects on algae and plankton: cell mult. inhib.21-280mg/L
Degradation Biological: sig
processes Abiotic: hydrol,RxnOH*

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: Burial in a licenced land-fill or Incineration in a licenced apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - TRANSPORTATION INFORMATION

Labels Required

flammable liquid

HAZCHEM

3[Y]E

Land Transport UNDG:

Dangerous Goods Class:	3	Subrisk:	None
UN Number:	1993	Packing Group:	II
Shipping Name:FLAMMABLE LIQUID, N.O.S.			

Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1993	Packing Group:	II

continued...

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Section 14 - TRANSPORTATION INFORMATION

ERG Code: 3H
Shipping Name: Flammable liquid, n.o.s. *

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1993	Packing Group:	II
EMS Number:	None	Marine Pollutant:	Not Determined

Shipping Name: FLAMMABLE LIQUID, N.O.S.

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

S5

REGULATIONS

acetone (CAS: 67-64-1) is found on the following regulatory lists;

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

Australia Poisons Schedule

OECD Representative List of High Production Volume (HPV) Chemicals

n-butyl acetate (CAS: 123-86-4) is found on the following regulatory lists;

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

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

OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

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Issue Date: 16-May-2006

Print Date: 16-May-2006