

# EPIREZ CLEAN UP SOLVENT

Chemwatch Material Safety Data Sheet  
Issue Date: 16-Jun-2006  
C317SC

CHEMWATCH 20495  
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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

EPIREZ CLEAN UP SOLVENT

### SYNONYMS

"Product Codes: E991101, E991102", "! 01 /11/1998"

### PROPER SHIPPING NAME

FLAMMABLE LIQUID, N.O.S.(  
contains methylated spirits)

### PRODUCT USE

Cleaning solvent for epoxy products.

### 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

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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

S5

### RISK

Highly flammable.  
Harmful by inhalation and in contact with skin.  
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.  
HARMFUL-May cause lung damage if swallowed.

### 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

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Section 2 - HAZARDS IDENTIFICATION

Poisons Information Centre.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
xylene	1330-20-7	30-60
modified alcohol		30-60
methyl isobutyl ketone	108-10-1	10-30
d-limonene	5989-27-5	1-9

## 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.

### 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.
- Transport to hospital, or doctor.

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Section 4 - FIRST AID MEASURES

## NOTES TO PHYSICIAN

For acute or short term repeated exposures to xylene:

- Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- Pulmonary absorption is rapid with about 60-65% retained at rest.
- Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases ( $pO_2 < 50$  mm Hg or  $pCO_2 > 50$  mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

## BIOLOGICAL EXPOSURE INDEX - BEI

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

Determinant	Index	Sampling Time	Comments
Methylhippu-ric acids in urine	1.5 gm/gm creatinine	End of shift	
	2 mg/min	Last 4 hrs of shift	

## 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.
- 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.

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## Section 5 - FIRE FIGHTING MEASURES

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- 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.

### 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). Other combustion products include carbon dioxide (CO<sub>2</sub>).

### FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

### HAZCHEM

3[Y]E

### Personal Protective Equipment

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

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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.

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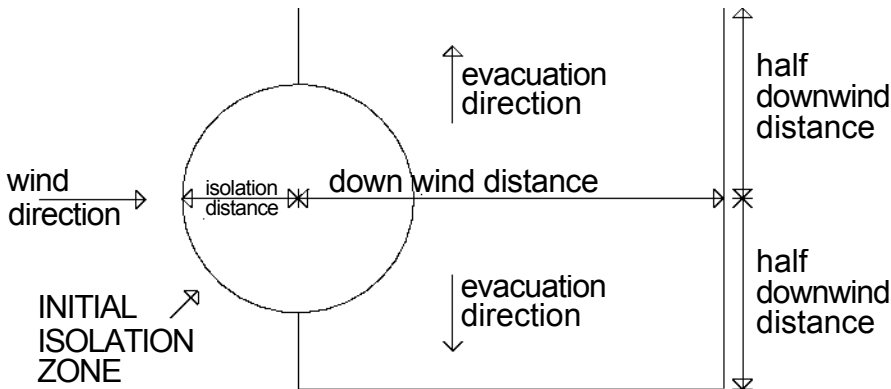
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Section 6 - ACCIDENTAL RELEASE MEASURES

- 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

### PROTECTIVE ACTION ZONE



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 CAN UTEC -Transport Canada.

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Section 6 - ACCIDENTAL RELEASE MEASURES

## 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:

xylene	900 ppm
methyl isobutyl ketone	500 ppm

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

xylene	200 ppm
methyl isobutyl ketone	250 ppm

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

xylene	150 ppm
methyl isobutyl ketone	75 ppm

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

xylene	100 ppm
methyl isobutyl ketone	75 ppm

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	$\geq 0.1\%$	Toxic (T)	$\geq 3.0\%$
R50	$\geq 0.25\%$	Corrosive (C)	$\geq 5.0\%$
R51	$\geq 2.5\%$		
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

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure 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 generation of static electricity.
- DO NOT use plastic buckets.
- Earth all lines and equipment.
- Use spark-free tools when handling.
- 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.

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Section 7 - HANDLING AND STORAGE

- 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.

## STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

## STORAGE REQUIREMENTS

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- 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/m3	ppm	STEL mg/m3	STEL ppm	Peak mg/m3	Peak ppm
Australia Exposure Standards	xylene	80	350	150	655			
Australia Exposure Standards	methyl isobutyl ketone	50	205	75	307			

The following materials had no OELs on our record under the following CAS or Chemwatch (CW) numbers

Epirez Clean Up Solvent: No data available for CW:20495

xylene: No data available for CAS: 1330-20-7

d-limonene: No data available for CAS:5989-27-5

### EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (ppm)	Original IDLH Value (mg/m3)	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
xylene	1,000			900
methyl isobutyl ketone	3,000			500

None assigned. Refer to individual constituents.

### INGREDIENT DATA

XYLENE:

Odour Threshold Value: 20 ppm (detection), 40 ppm (recognition)

NOTE: Detector tubes for o-xylene, measuring in excess of 10 ppm, are available commercially. (m-xylene and p-xylene give almost the same

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

response)

Xylene vapour is an irritant to the eyes, mucous membranes and skin and causes narcosis at high concentrations. Exposure to doses sufficiently high to produce intoxication and unconsciousness also produces transient liver and kidney toxicity. Neurologic impairment is NOT evident amongst volunteers inhaling up to 400 ppm though complaints of ocular and upper respiratory tract irritation occur at 200 ppm for 3 to 5 minutes.

Exposure to xylene at or below the recommended TLV-TWA and STEL is thought to minimise the risk of irritant effects and to produce neither significant narcosis or chronic injury. An earlier skin notation was deleted because percutaneous absorption is gradual and protracted and does not substantially contribute to the dose received by inhalation.

### METHYL ISOBUTYL KETONE:

Unfatigued, odour recognition threshold (100% test panel) is 0.3 - 0.5 ppm.

Distinct odour at 15 ppm.

Odour is objectionable and vapours are irritating to eyes at 200 ppm.

NOTE: Detector tubes for methyl isobutyl ketone, measuring in excess of 50 ppm, are commercially available.

Exposure at or below the recommended TLV-TWA should provide sufficient protection against the potential irritant effects, headache and nausea, neurasthenic symptoms and other systemic toxicities (including liver and kidney damage) produced by MIBK.

### D-LIMONENE:

No exposure limits set by NOHSC or ACGIH.

CEL TWA: 30 ppm, 165.6 mg/m<sup>3</sup> (compare WEEL-TWA\*)

A Workplace Environmental Exposure Level\* has been established by AIHA (American Industrial Hygiene Association) who have produced the following rationale:

D-limonene is not acutely toxic. In its pure form it is not a sensitiser but is irritating to the skin. Although there is clear evidence of carcinogenicity in male rats, the effect has been attributed to an alpha-2u-globin (a2u-G) renal toxicity which is both species and gender specific. Humans do not synthesise a2u-G, and metabolism studies indicate that 75% to 95% of d-limonene is excreted in 2-3 days with different metabolites identified between humans and rats. In a 2-year study, liver effects were noted in male mice at 500 mg/kg and reduced survival was noted in female rats at 600 mg/kg. The no observable effect levels (NOELs) were 250 and 300 mg/kg, respectively. A WEEL of 30 ppm is recommended to protect against these effects.

## PERSONAL PROTECTION

### EYE

- Safety glasses with side shields; or as required,
- 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 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

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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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 gloves with barrier cream

Wear safety footwear.

### OTHER

- Overalls.

- Eyewash unit.

Ensure there is ready access to an emergency shower.

### ENGINEERING CONTROLS

Use in a well-ventilated area.

General exhaust is adequate under normal operating conditions. Local exhaust 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.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Clear highly flammable liquid; 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 Applicable

Volatile Component (%vol): 100

Relative Vapour Density (air=1): >1

Lower Explosive Limit (%): Not Available

Autoignition Temp (°C): Not Available

State: Liquid

Boiling Range (°C): 78 initial

Specific Gravity (water=1): 0.83

pH (as supplied): Not Applicable

Vapour Pressure (kPa): Not Available

Evaporation Rate: Not Available

Flash Point (°C): 13 (methylated spirits)

Upper Explosive Limit (%): Not Available

Decomposition Temp (°C): Not Available

Viscosity: Not Available

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of heat source and ignition source.

- 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

Not a likely route of entry into the body in commercial or industrial environments. The liquid may produce considerable gastrointestinal discomfort and be harmful or toxic if swallowed. Ingestion may cause nausea, pain and vomiting. Vomit entering the lungs by aspiration can cause inflammation of the lungs, which can lead to death.

##### EYE

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

##### SKIN

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.

Toxic effects may result from skin absorption.

The material may accentuate any pre-existing dermatitis condition.

##### INHALED

The vapour is highly discomforting.  
Harmful by inhalation.

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. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].

#### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

MATERIAL	CARCINOGEN	SENSITISER	SKIN	REPROTOXIN
xylene	IARC:Group 3: Not classifiable as to carcinogenic ity to humans			ILOEI

CARCINOGEN

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Section 11 - TOXICOLOGICAL INFORMATION

IARC: International Agency for Research on Cancer (IARC)  
Carcinogens: xylene Category: Group 3: Not classifiable as to  
carcinogenicity to humans

REPROTOXIN

ILOEI: ILO Chemicals in the electronics industry that have toxic  
effects on reproduction: xylene

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## Section 12 - ECOLOGICAL INFORMATION

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Marine Pollutant: Not Determined

No data for.

Refer to data for ingredients, which follows:

XYLENE:

"Fish LC50 (96hr.) (mg/l):" 13.5

BCF<100: 2.14-2.20

"log Kow (Prager 1995):" 3.12-3.20

"Half-life Soil - High (hours):" 672

"Half-life Soil - Low (hours):" 168

"Half-life Air - High (hours):" 44

"Half-life Air - Low (hours):" 2.6

"Half-life Surface water - High (hours):" 672 "

Half-life Surface water - Low (hours):" 168 "

Half-life Ground water - High (hours):" 8640 "

Half-life Ground water - Low (hours):" 336

"Aqueous biodegradation - Aerobic - High (hours):" 672"

Aqueous biodegradation - Aerobic - Low (hours):" 168"

Aqueous biodegradation - Anaerobic - High (hours):" 8640

"Aqueous biodegradation - Anaerobic - Low (hours):" 4320

"Photolysis maximum light absorption - High (nano-m):" 269.5

"Photolysis maximum light absorption - Low (nano-m):" 265

"Photooxidation half-life water - High (hours):" 2.70E+08"

Photooxidation half-life water - Low (hours):" 3.90E+05"

Photooxidation half-life air - High (hours):" 44"

Photooxidation half-life air - Low (hours):" 2.6

The lower molecular weight hydrocarbons are expected to form a "slick" on the surface of waters after release in calm sea conditions. This is expected to evaporate and enter the atmosphere where it will be degraded through reaction with hydroxy radicals.

Some of the material will become associated with benthic sediments, and it is likely to be spread over a fairly wide area of sea floor. Marine sediments may be either aerobic or anaerobic. The material, in probability, is biodegradable, under aerobic conditions (isomerised olefins and alkenes show variable results). Evidence also suggests that the hydrocarbons may be degradable under anaerobic conditions although such degradation in benthic sediments may be a relatively slow process.

Under aerobic conditions the material will degrade to water and carbon dioxide, while under anaerobic processes it will produce water, methane and carbon dioxide.

Based on test results, as well as theoretical considerations, the potential for

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## Section 12 - ECOLOGICAL INFORMATION

bioaccumulation may be high. Toxic effects are often observed in species such as blue mussel, daphnia, freshwater green algae, marine copepods and amphipods.

Drinking Water Standards:

hydrocarbon total: 10 ug/l (UK max.).

DO NOT discharge into sewer or waterways.

METHYL ISOBUTYL KETONE:"

Hazardous Air Pollutant:" Yes

"Fish LC50 (96hr.) (mg/l):" 460 (24hr)"

Algae IC50 (72hr.) (mg/l):" 136-725"

log Kow (Sangster 1997):" 1.31

BOD5: 2.06 (4.4%)

COD: 2.16 (79%)

ThOD: 2.72

"Half-life Soil - High (hours):" 168024"

Half-life Soil - Low (hours):" 45.5"

Half-life Air - High (hours):" 4.6"

Half-life Air - Low (hours):" 468

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

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

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

"Half-life Ground water - Low (hours):" 168

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

"Aqueous biodegradation - Aerobic - Low (hours):" 672

"Aqueous biodegradation - Anaerobic - High (hours):" 96

"Aqueous biodegradation - Anaerobic - Low (hours):" 22%

"Photolysis maximum light absorption - High (nano-m):" 283

"Photolysis maximum light absorption - Low (nano-m):" 232

"Photooxidation half-life air - High (hours):" 45.5

"Photooxidation half-life air - Low (hours):" 4.6

DO NOT discharge into sewer or waterways.

Drinking Water Standards:

hydrocarbon total: 10 ug/l (UK max.).

log Kow: 1.19-1.31

Koc: 19-106

Half-life (hr) air: 15-17

Half-life (hr) H2O surface water: 15-33

Henry's atm m<sup>3</sup> /mol: 9.40E-05

BOD 5 if unstated: 0.12-2.14,4.4%

COD: 2.16,79%

ThOD: 2.72

BCF: 2-5

Toxicity invertebrate: cell mult. inhib.115-980mg/L

Bioaccumulation: not sig

Effects on algae and plankton: cell mult. inhib. algae 90-125mg/L

Degradation Biological: sig

processes Abiotic: RxnOH\*, photol, no hydrol&oxid

D-LIMONENE:

Drinking Water Standards:

hydrocarbon total: 10 ug/l (UK max.).

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.

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Section 12 - ECOLOGICAL INFORMATION

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.  
DO NOT discharge into sewer or waterways.

## 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.

## 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. (contains methylated spirits)			

### Air Transport IATA:

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

xylene (CAS: 1330-20-7) is found on the following regulatory lists;  
Australia High Volume Industrial Chemical List (HVICL)  
Australia Inventory of Chemical Substances (AICS)  
Australia Poisons Schedule  
International Agency for Research on Cancer (IARC) Carcinogens  
International Council of Chemical Associations (ICCA) - High Production Volume

continued...

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Section 15 - REGULATORY INFORMATION

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List

OECD Representative List of High Production Volume (HPV) Chemicals

methyl isobutyl ketone (CAS: 108-10-1) 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

d-limonene (CAS No: None):

No regulations applicable

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## Section 16 - OTHER INFORMATION

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