

# MEGUIAR'S D12119 - DETAILER GLASS CLEANER AEROSOL

Chemwatch Material Safety Data Sheet

Issue Date: 9-Feb-2007

NA317EC

CHEMWATCH 6601-26

Version No:1

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

MEGUIAR'S D12119 - DETAILER GLASS CLEANER AEROSOL

### SYNONYMS

"Manufacturer's Code: D12119"

### PROPER SHIPPING NAME

AEROSOLS

### PRODUCT USE

Application is by spray atomisation from a hand held aerosol pack. Glass cleaner.

### SUPPLIER

Company: Meguiar' s Australia P/L

Address:

35 Slough Business Park

Holker St, Silverwater

NSW, 2128

AUSTRALIA

Telephone: (+61 2) 9737 9422

Telephone: 1800 347 570

Fax: 02 9737 9414

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## Section 2 - HAZARDS IDENTIFICATION

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### STATEMENT OF HAZARDOUS NATURE

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

### POISONS SCHEDULE

None

### RISK

Risk of explosion if heated under confinement.

### SAFETY

Do not breathe gas/fumes/vapour/spray.  
This material and its container must be disposed of as hazardous waste.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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NAME	CAS RN	%
conditioners proprietary		1-5
ethylene glycol monobutyl ether	111-76-2	1-4
isopropanol	67-63-0	1-4
sodium dioctyl sulfosuccinate	577-11-7	0.01-3
water	7732-18-5	75-95
hydrocarbon propellant	68476-85-7.	2-10

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## Section 4 - FIRST AID MEASURES

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### SWALLOWED

Not considered a normal route of entry.

### EYE

If aerosols come in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye 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 solids or aerosol mists are deposited upon the skin:

- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

### INHALED

If aerosols, fumes or combustion products are inhaled:

- Remove to fresh air.
- 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.
- If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, 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

Treat symptomatically.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

SMALL FIRE:

- Water spray, dry chemical or CO2

LARGE FIRE:

- Water spray or fog.

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

When any large container (including road and rail tankers) is involved in a fire,

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Section 5 - FIRE FIGHTING MEASURES

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consider evacuation by 100 metres in all directions.

## FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered to be a significant fire risk.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- Aerosol cans may explode on exposure to naked flames.
- Rupturing containers may rocket and scatter burning materials.
- Hazards may not be restricted to pressure effects.
- May emit acrid, poisonous or corrosive fumes.
- Decomposes on heating and may emit toxic fumes of carbon monoxide (CO).

## FIRE INCOMPATIBILITY

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

## HAZCHEM: 2Y

### 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

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear protective clothing, impervious gloves and safety glasses.
- Shut off all possible sources of ignition and increase ventilation.
- Wipe up.
- If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
  - Clean up all spills immediately.
  - Avoid breathing vapours and contact with skin and eyes.
  - Control personal contact by using protective equipment.
  - Contain and absorb spill with sand, earth, inert material or vermiculite.
  - Wipe up.
  - Place in a suitable labelled container for waste disposal.

### MAJOR SPILLS

- Remove leaking cylinders to a safe place.
  - Fit vent pipes. Release pressure under safe, controlled conditions
  - Burn issuing gas at vent pipes.
- DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.
- 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 courses
  - 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.

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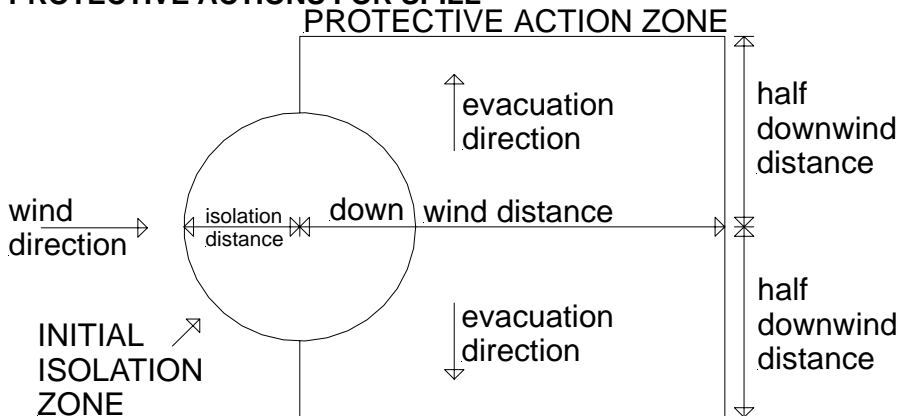
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## Section 6 - ACCIDENTAL RELEASE MEASURES

- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

### PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)

Isolation Distance	-
Downwind Protection Distance	8 metres
IERG Number	49

### 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 126 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:

ethylene glycol monobutyl ether	700 ppm
water	500 mg/m <sup>3</sup>
hydrocarbon propellant	2000 ppm

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

ethylene glycol monobutyl ether	100 ppm
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## Section 6 - ACCIDENTAL RELEASE MEASURES

water 500 mg/m<sup>3</sup>  
hydrocarbon propellant 2000 ppm

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

ethylene glycol monobutyl ether 50 ppm  
water 500 mg/m<sup>3</sup>  
hydrocarbon propellant 2000 ppm

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

ethylene glycol monobutyl ether 50 ppm  
water 500 mg/m<sup>3</sup>  
hydrocarbon propellant 1000 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%		
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

Atmospheres must be tested and O.K. before work resumes after leakage.

DO NOT transfer gas from one cylinder to another.

Obtain a work permit before attempting any repairs. Do not attempt repair work on lines, vessels under pressure.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- DO NOT incinerate or puncture aerosol cans.
- DO NOT spray directly on humans, exposed food or food utensils.
- 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 are maintained.

### SUITABLE CONTAINER

- Aerosol dispenser.
- Check that containers are clearly labelled.

### STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents.

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Section 7 - HANDLING AND STORAGE

## STORAGE REQUIREMENTS

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.

## 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>	TWA F/CC
Australia Exposure Standards	ethylene glycol monobutyl ether (2- Butoxyethanol)	20	96.9	50	242			
Australia Exposure Standards	isopropanol (Isopropyl alcohol)	400	983	500	1, 230			
Australia Exposure Standards	sodium dioctyl sulfosuccinate (Inspirable dust (Not specified))		10					
Australia Exposure Standards	hydrocarbon propellant (LPG (liquified petroleum gas))	1, 000	1, 800					

The following materials had no OELs on our records

- water: CAS:7732-18-5

### EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m <sup>3</sup> )	Revised IDLH Value (ppm)
ethylene glycol monobutyl ether		700 [Unch]
isopropanol		2, 000 [LEL]
hydrocarbon propellant		2, 000 [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.

### MATERIAL DATA

Not available. Refer to individual constituents.

### INGREDIENT DATA

ETHYLENE GLYCOL MONOBUTYL ETHER:

Exposed individuals are 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 A or B.

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

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

		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% 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

Odour Threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition)  
Although rats appear to be more susceptible than other animals anaemia is not uncommon amongst humans following exposure. The TLV reflects the need to maintain exposures below levels found to cause blood changes in experimental animals. It is concluded that this limit will reduce the significant risk of irritation, haematologic effects and other systemic effects observed in humans and animals exposed to higher vapour concentrations. The toxic effects typical of some other glycol ethers (pancytopenia, testis atrophy and teratogenic effects) are not found with this substance.

### ISOPROPANOL:

Odour Threshold Value: 3.3 ppm (detection), 7.6 ppm (recognition)  
Exposure at or below the recommended TLV-TWA and STEL is thought to minimise the potential for inducing narcotic effects or significant irritation of the eyes or upper respiratory tract. It is believed, in the absence of hard evidence, that this limit also provides protection against the development of chronic health effects. The limit is intermediate to that set for ethanol, which is less toxic, and n-propyl alcohol, which is more toxic, than isopropanol.

### WATER:

No exposure limits set by NOHSC or ACGIH.

### HYDROCARBON PROPELLANT:

Not available

## PERSONAL PROTECTION

### EYE

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.

- NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

### HANDS/FEET

No special equipment needed when handling small quantities.

OTHERWISE:

For potentially moderate exposures:

Wear general protective gloves, eg. light weight rubber gloves.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

For potentially heavy exposures:

Wear chemical protective gloves, eg. PVC. and safety footwear.

### OTHER

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Skin cleansing cream.
- Eyewash unit.
- Do not spray on hot surfaces.

### 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	A- AUS	-
1000	50	-	A- AUS
5000	50	Airline *	-
5000	100	-	A- 2
10000	100	-	A- 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

General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

White liquid foam aerosol with a mild ammonia odour; insoluble in water.

### PHYSICAL PROPERTIES

Gas.

Does not mix with water.

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

Boiling Range (°C): Not Available  
Specific Gravity (water=1): 1.0  
pH (as supplied): Neutral  
Vapour Pressure (kPa): Not Available  
Evaporation Rate: Not Available  
Flash Point (°C): Not Applicable  
Upper Explosive Limit (%): Not Applicable  
Decomposition Temp (°C): Not Available  
Viscosity: Not Available

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

- Elevated temperatures.
  - Presence of open flame.
  - Product is considered stable.
  - Hazardous polymerisation will not occur.
- 

## Section 11 - TOXICOLOGICAL INFORMATION

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### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.

##### EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

##### 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.

Spray mist may produce discomfort.

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

##### INHALED

Not normally a hazard due to non-volatile nature of product.

The vapour is discomforting.

WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

#### CHRONIC HEALTH EFFECTS

On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.

Principal route of occupational exposure to the gas is by inhalation.

#### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

ETHYLENE GLYCOL MONOBUTYL ETHER:

TOXICITY

Oral (rat) LD50: 470 mg/kg

IRRITATION

Skin (rabbit): 500 mg, open; Mild

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## Section 11 - TOXICOLOGICAL INFORMATION

Dermal (rabbit) LD50: 220 mg/kg  
Inhalation (human) TLo: 100 ppm  
Inhalation (human) TLo: 195 ppm/8h  
Inhalation (rat- male) LC50: 486 ppm \*  
Inhalation (rat- female) LC50: 450 ppm \*

Eye (rabbit): 100 mg/24h- Moderate  
Eye (rabbit): 100 mg SEVERE  
\* [Union Carbide]

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

NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes.

### ISOPROPANOL:

#### TOXICITY

Oral (human) LDLo: 3570 mg/kg  
Oral (human) TDLo: 223 mg/kg  
Oral (man) TDLo: 14432 mg/kg  
Oral (rat) LD50: 5045 mg/kg  
Dermal (rabbit) LD50: 12800 mg/kg

#### IRRITATION

Skin (rabbit): 500 mg - Mild  
Eye (rabbit): 10 mg - Moderate  
Eye (rabbit): 100mg/24hr- Moderate  
Eye (rabbit): 100 mg - SEVERE

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.

### SODIUM DIOCTYL SULFOSUCCINATE:

#### TOXICITY

Oral (rat) LD50: 1900 mg/kg  
Intraperitoneal (rat) LD50: 590 mg/kg  
Oral (mouse) LD50: 2643 mg/kg  
Intravenous (mouse) LD50: 60 mg/kg  
Structural changes in blood vessels recorded.

#### IRRITATION

Eye (rabbit): 0.250 mg - Mild  
Eye (rabbit): 1% - SEVERE  
Skin (rabbit): 10 mg/24h- Moderate

### WATER:

No significant acute toxicological data identified in literature search.

### HYDROCARBON PROPELLANT:

Not available. Refer to individual constituents.

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
ethylene glycol	IARC:3			
monobutyl ether				
isopropanol	IARC:3			

### CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: ethylene glycol monobutyl ether Category: 3

### CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: isopropanol Category: 3

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## Section 12 - ECOLOGICAL INFORMATION

Marine Pollutant:Not Determined

Drinking Water Standards:

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

DO NOT discharge into sewer or waterways.

Refer to data for ingredients, which follows:

ETHYLENE GLYCOL MONOBUTYL ETHER:

Fish LC50 (96hr.) (mg/l):	1490
BCF<100:	0.4
log Kow (Prager 1995):	0.83
log Kow (Sangster 1997):	0.8
Half- life Soil - High (hours):	672
Half- life Soil - Low (hours):	168
Half- life Air - High (hours):	32.8
Half- life Air - Low (hours):	3.28
Half- life Surface water - High (hours):	672
Half- life Surface water - Low (hours):	168
Half- life Ground water - High (hours):	1344
Half- life Ground water - Low (hours):	336
Aqueous biodegradation - Aerobic - High (hours):	672
Aqueous biodegradation - Aerobic - Low (hours):	168
Aqueous biodegradation - Anaerobic - High (hours):	2688
Aqueous biodegradation - Anaerobic - Low (hours):	672
Photooxidation half- life air - High (hours):	32.8
Photooxidation half- life air - Low (hours):	3.28
Fish LC50 (96hr.) (mg/l):	1250- 1650
Daphnia magna EC50 (48hr.) (mg/l):	600- 1000

DO NOT discharge into sewer or waterways.

log Kow: 0.76-0.83

Koc: 67

Half-life (hr) air: 17

Henry's atm m<sup>3</sup> /mol: 2.08E-08

BOD 5 if unstated: 0.71

COD: 2.2

Log BCF: 0.4

Fish toxicity:

(-) 24h LD50: 983-1650 mg/L

(Fathead minnow) 96h LC50: 1700 mg/L \*\*

Invertebrate toxicity:

cell mult. inhib.91-900mg/L

(Daphnia) 48h LC50: >1000 mg/L \*\*

Bioaccumulation: not sig

Effects on algae and plankton: cell mult. inhib.35-900mg/L

Degradation Biological: rapid

processes Abiotic: no hydrol&photol,RxnOH\*

\*\* [Union Carbide]

ISOPROPANOL:

log Kow (Sangster 1997):	0.05
log Pow (Verschueren 1983):	- 0.5714285
BOD5:	60%
BOD20:	78%
COD:	2.23
ThOD:	2.4
Half- life Soil - High (hours):	168
Half- life Soil - Low (hours):	24
Half- life Air - High (hours):	72

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## Section 12 - ECOLOGICAL INFORMATION

Half- life Air - Low (hours):	6.2
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
Photooxidation half- life water - High (hours):	1.90E+05
Photooxidation half- life water - Low (hours):	4728
Photooxidation half- life air - High (hours):	72
Photooxidation half- life air - Low (hours):	6.2

DO NOT discharge into sewer or waterways.

log Kow: -0.16- 0.28

Half-life (hr) air: 33-84

Half-life (hr) H<sub>2</sub>O surface water: 130

Henry's atm m<sup>3</sup> /mol: 8.07E-06

BOD 5 if unstated: 1.19,60%

COD: 1.61-2.30,97%

ThOD: 2.4

Aquatic toxicity

(fish) 24-96h TLm: 42.5-240 mg/l

(fish) 96h LC50: 4200-9640 mg/l \*

(daphnia) 48h EC50: 2285 mg/l \*

BOD 20: >70% \*

\* [Akzo Nobel]

### SODIUM DIOCTYL SULFOSUCCINATE:

Octanol/water partition coefficients cannot easily be determined for surfactants because one part of the molecule is hydrophilic and the other part is hydrophobic. Consequently they tend to accumulate at the interface and are not extracted into one or other of the liquid phases. As a result surfactants are expected to transfer slowly, for example, from water into the flesh of fish. During this process, readily biodegradable surfactants are expected to be metabolised rapidly during the process of bioaccumulation. This was emphasised by the OECD Expert Group stating that chemicals are not to be considered to show bioaccumulation potential if they are readily biodegradable.

Several anionic and nonionic surfactants have been investigated to evaluate their potential to bioconcentrate in fish. BCF values (BCF - bioconcentration factor) ranging from 1 to 350 were found. These are absolute maximum values, resulting from the radiolabelling technique used. In all these studies, substantial oxidative metabolism was found resulting in the highest radioactivity in the gall bladder. This indicates liver transformation of the parent compound and biliary excretion of the metabolised compounds, so that "real" bioconcentration is overstated. After correction it can be expected that "real" parent BCF values are one order of magnitude less than those indicated above, i.e. "real" BCF is <100. Therefore the usual data used for classification by EU directives to determine whether a substance is "Dangerous to the Environment" has little bearing on whether the use of the surfactant is environmentally acceptable.

## Section 13 - DISPOSAL CONSIDERATIONS

- Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- DO NOT incinerate or puncture aerosol cans.
- Bury residues and emptied aerosol cans at an approved site.

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## Section 14 - TRANSPORTATION INFORMATION



Labels Required: NON-FLAMMABLE COMPRESSED GAS

HAZCHEM: 2Y

UNDG:

Dangerous Goods Class:	2.2	Subrisk:	None
UN Number:	1950	Packing Group:	None
Shipping Name:	AEROSOLS		

### Air Transport IATA:

ICAO/IATA Class:	2.2	ICAO/IATA Subrisk:	None
UN/ID Number:	1950	Packing Group:	None
ERG Code:	2L		
Shipping Name:	Aerosols, non-flammable		

### Maritime Transport IMDG:

IMDG Class:	2	IMDG Subrisk:	SP63
UN Number:	1950	Packing Group:	None
EMS Number:	F- D, S- U	Marine Pollutant:	Not Determined
Shipping Name:	AEROSOLS		

## Section 15 - REGULATORY INFORMATION

**POISONS SCHEDULE: None**

### REGULATIONS

ethylene glycol monobutyl ether (CAS: 111-76-2) is found on the following regulatory lists;

- Australia Exposure Standards
- Australia High Volume Industrial Chemical List (HVICL)
- Australia Inventory of Chemical Substances (AICS)
- Australia Poisons Schedule
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6

- IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
- International Agency for Research on Cancer (IARC) Carcinogens
- OECD Representative List of High Production Volume (HPV) Chemicals

isopropanol (CAS: 67-63-0) is found on the following regulatory lists;

- Australia - Australia New Zealand Food Standards Code - Food Additives - Schedule 1 Permitted uses of food additives by food type
- Australia - Australia New Zealand Food Standards Code - Processing Aids - Generally permitted
- Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted carriers, solvents and diluents
- Australia Exposure Standards

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Australia High Volume Industrial Chemical List (HVICL)  
Australia Inventory of Chemical Substances (AICS)  
IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances  
International Agency for Research on Cancer (IARC) Carcinogens  
OECD Representative List of High Production Volume (HPV) Chemicals

sodium dioctyl sulfosuccinate (CAS: 577-11-7) is found on the following regulatory lists;  
Australia - Australia New Zealand Food Standards Code - Food Additives - Schedule 1  
Permitted uses of food additives by food type

Australia Exposure Standards  
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

sodium dioctyl sulfosuccinate (CAS: 53023-94-2) is found on the following regulatory lists;

Australia Exposure Standards

water (CAS: 7732-18-5) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)  
OECD Representative List of High Production Volume (HPV) Chemicals

hydrocarbon propellant (CAS: 68476-85-7) is found on the following regulatory lists;

Australia Exposure Standards  
Australia High Volume Industrial Chemical List (HVICL)  
Australia Inventory of Chemical Substances (AICS)  
OECD Representative List of High Production Volume (HPV) Chemicals

hydrocarbon propellant (CAS: 68476-86-8) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)  
OECD Representative List of High Production Volume (HPV) Chemicals

## Section 16 - OTHER INFORMATION

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
sodium dioctyl sulfosuccinate	577- 11- 7, 53023- 94- 2
hydrocarbon propellant	68476- 85- 7, 68476- 86- 8

### REPRODUCTIVE HEALTH GUIDELINES

Ingredient	ORG	UF	Endpoi nt	CR	Adeq TLV
ethylene glycol monobutyl ether	3.6 mg/m3	100	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).

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