

# MATERIAL SAFETY DATA SHEET

Optic™

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## CHEMICAL PRODUCT AND COMPANY INFORMATION

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**Product Name** Optic™

**Part #** OPT500

**Version** 1.1

**Optimised** 2012

**24 Hour Emergency Phone**

**Company** SPQR Australia P/L

**Telephone** (03) 9357 5503

**24 Hour Emergency Poisons Telephone** 1800 039 008 (24 hrs)

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## HAZARDS IDENTIFICATION

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### RISK

None under normal operating conditions.

### Safety

#### Safety Codes

S23

S24

S39

S26

#### Safety Phrases

Do not breathe Gas/Fumes/Vapour/Spray

Avoid contact with skin

Wear Eye/Face Protection

In case of contact with eyes, rinse with plenty of water and contact doctor or poisons information centre.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road and rail; NON-DANGEROUS GOODS

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## COMPOSITION / INFORMATION ON INGREDIENTS

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<u>Name</u>	<u>CAS RN</u>	<u>%</u>
Ethylene Glycol Monobutyl Ether	111-76-2	<10
Isopropyl alcohol	67-63-0	<10
Ingredients determined to be non-hazardous (including water)	7732-18-5	>60

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## FIRST AID MEASURES

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### 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.

### EYE

If this product comes in contact with eyes:

- Wash out immediately with copious amounts of clean water.
- Ensure complete irrigation by keeping eyelids open and moving eye around.
- Seek medical attention 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 even of irritation.

### INHALED

- If fumes or combustion products are inhaled, remove from contaminated area.

### NOTES TO PHYSICIAN

Treat Symptomatically.

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## **FIRE FIGHTING MEASURES**

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### **Extinguishing Media**

- No restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding areas.

### **Fire Fighting**

- Alert Fire Brigade
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

### **FIRE/EXPLOSION HAZARD**

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).

### **FIRE INCOMPATIBILITY**

None known.

### **HAZCHEM**

None

### **Personal Protective Equipment**

Gloves, boots (chemical resistant).

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## ACCIDENTAL RELEASE MEASURES

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### MINOR SPILLS

- 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.

### MAJOR SPILLS

Minor hazard

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.

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## HANDLING AND STORAGE

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### PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.

### SUITABLE CONTAINER

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

### STORAGE INCOMPATIBILITY

None known.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

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**EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**EXPOSURE CONTROLS**

<u>Source</u>	<u>Material</u>	<u>TWA ppm</u>	<u>TWA mg/m<sup>3</sup></u>	<u>STEL ppm</u>	<u>STEL mg/m<sup>3</sup></u>	<u>Notes</u>
Exposure	ethylene glycol	20	96.9	50	242	Sk
Standards	monobutyl ether					
Australia	(2-Butoxyethanol)					

The following materials had no OELs on our records

- Water: CAS:7732- 18- 5

**PERSONAL PROTECTION****RESPIRATOR**

Type A-P Filter of sufficient capacity

**EYE**

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

OTHERWISE: Safety glasses with side shields.

**HANDS/FEET**

No special equipment needed when handling small quantities.

OTHERWISE: Wear chemical protective gloves.

**OTHER**

No special equipment needed when handling small quantities.

OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

**ENGINEERING CONTROLS**

General exhaust is adequate under normal operating conditions.

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## PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Clear pale green slightly fragrant liquid; mixes with water.

### PHYSICAL PROPERTIES

Liquid.

Mixes with water.

**State** Liquid

**Molecular Weight** Not Applicable

**Melting Range (°C)** <0

**Viscosity** Not Available

**Boiling Range (°C)** 100 approx.

**Solubility in water (g/L)** Miscible

**Flash Point (°C)** Not Applicable

**pH (1% solution)** Not Available

**Decomposition Temp (°C)** Not Available

**pH (as supplied)** 8 - 9

**Auto Ignition Temp (°C)** Not Available

**Vapour Pressure (kPa)** 2

**Upper Explosive Limit (%)** Not Applicable

**Specific Gravity (water=1)** 1.015- 1.025

**Lower Explosive Limit (%)** Not Applicable

**Relative Vapour Density (air=1)** Not Available

**Volatile Component (%vol)** Not Available Evaporation Rate Not Available

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## CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

*For incompatible materials - refer to Section 7 - Handling and Storage*

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## TOXICOLOGICAL INFORMATION

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### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

Ingestion may produce health effects \*

May produce discomfort of eyes \*

*\*limited evidence*

### TOXICITY AND IRRITATION

Not available, refer to individual constituents.

#### Toxicity

Oral (rat): LD50 470mg/kg

Skin (rabbit): 500mg, open: Mild

Dermal (rabbit): LD50 220 mg/kg

Eye (rabbit): 100mg/24h- moderate

Eye (rabbit): 100mg SEVERE

Inhalation (human): TClO: 100ppm

Inhalation (human): TClO: 195ppm/8h [Union Carbide]

Inhalation (rat): LC50 450ppm

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 (non allergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.

For Ethylene glycol:

#### Ethylene glycol

Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract.

Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow.

#### For ethylene glycol monoalkyl ethers and their acetates (EGMAEs)

Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates.

EGMAEs are substrates for alcohol dehydrogenase isozyme ADH-3, which catalyses the conversion of their terminal alcohols to aldehydes (which are transient metabolites).

Acute Toxicity: Oral LD50 values in rats for all category members range from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values increasing with decreasing molecular weight.

Exposure of pregnant rats to ethylene glycol monobutyl ether (2-butoxyethanol) at 100 ppm or rabbits at 200 ppm during organogenesis resulted in maternal toxicity and embryotoxicity including a decreased number of viable implantations per litter. Slight foetal toxicity in the form of poorly ossified or unossified skeletal elements was also apparent in rats.

At least one researcher has stated that the reproductive effects were less than that of other monoalkyl ethers of ethylene glycol.

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

#### WATER:

No significant acute toxicological data identified in literature search

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## ECOLOGICAL INFORMATION

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No Data

### Ecotoxicity

<u>Ingredient</u>	<u>Persistence (water/soil)</u>	<u>Persistence (air)</u>	<u>Bioaccumulation</u>	<u>Mobility</u>
Ethylene glycol monobutyl ether	Low	Low	Low	High

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## DISPOSAL CONSIDERATIONS

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Recycle wherever possible or consult manufacturer for recycling options  
Consult State Land Waste Management Authority for disposal  
Bury residue in an authorised landfill  
Recycle containers if possible, or dispose of in an authorised landfill

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## TRANSPORT INFORMATION

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### HAZCHEM

None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

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## REGULATORY INFORMATION

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### Poisons schedule

None

### REGULATIONS

Regulations for ingredients

**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)", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid

Substances", "OECD Representative List of High Production Volume (HPV) Chemicals"

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

"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "OECD Representative List of High Production Volume (HPV) Chemicals"

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## OTHER INFORMATION

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This MSDS is a Hazard Communication tool and should be used for Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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*This is the end of the MSDS*