

# Material Safety Data Sheet

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Duro Prep Antifungal Concentrate

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DISTRIBUTED IN AUSTRALIA BY:  
**Durotech Industries**  
 14 Essex Street  
 P.O. BOX 5092  
 Minto, NSW. 2566  
 ABN 33 738 594 170

Telephone Number For Information: 61 2 9603 1177  
 Fax Number: 61 2 9603 3796  
 Emergency Telephone Number: 0423 591 926  
 Email: [sales@durotechindustries.com.au](mailto:sales@durotechindustries.com.au)  
 Web: [www.durotechindustries.com.au](http://www.durotechindustries.com.au)

Classified as **Hazardous** according to criteria of ASCC<sup>1</sup>

UN NO.....:	1760	D.G. Class.:	8	Pack. Group...:	III
HAZCHEM:	2X	SUB. RISK.:	None allocated	SUSDP.....:	5

**PROPER SHIPPING NAME:** see section 14.

**PRODUCT USE:** antifungal treatment.

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS No	Weight %
Quaternary ammonium compounds	CAS: 63449-41-2	10-25
biphenyl-2-ol	CAS: 90-43-7	2.5-10%

See Section 8, Exposure Controls / Personal Protection

## 3. HAZARDS IDENTIFICATION

· **Hazard designation:**

**C Corrosive**

**N Dangerous for the environment**

· **Information pertaining to particular dangers for man and environment**

**R 34 Causes burns.**

**R 50 Very toxic to aquatic organisms.**

## 4. FIRST AID MEASURES

**Eyes:** Immediately flush with water for 15 minutes. Get prompt medical attention

**Skin:** Immediately take off all contaminated clothing and wash contaminated area with soapy warm water. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

**Inhalation:** Remove to fresh air. Apply resuscitation if victim is not breathing. Get medical attention.

**Ingestion:** If product is swallowed, do NOT induce vomiting; wash mouth with water then drink plenty of water. Get urgent medical attention.

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## 5. FIRE FIGHTING MEASURES

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Flash Point .....	No data
Auto-ignition Temperature .....	No data
Lower Explosive Limit .....	Not applicable
Upper Explosive Limit .....	Not applicable

**Hazchem code: 2X****Suitable Extinguishing Media:**

Foam, carbon dioxide or dry chemical. Water spray or fog for large fires only.

**Protective Equipment for Fire Fighting:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Fire Fighting Procedures:**

Use water spray to cool exposed containers. Stay down-wind and fight fire from a safe distance. Spillage and fire fighting water must not enter drains or watercourses.

**Decomposition Products:**

Decomposes with fire to give off toxic and irritating fumes.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Small Spills:** Caution: floor may be slippery. Wear suitable protective equipment and clothing to prevent eye and skin contact. Contain spill. Do not allow into drains or waterways. Take up with inert absorbent material (e.g. sand, dirt, or vermiculite). Fill into marked, sealable containers for disposal. Dispose of empty containers in accordance with federal, state and local laws.

**Large Spills:** As the material is hazardous for the aquatic environment, it must be prevented from reaching surface water. Notify Emergency Services and advise nature of spill and material hazard. Isolate area.

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## 7. HANDLING AND STORAGE

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**Handling** – Ensure good exhaust ventilation in the work area. Decant carefully to avoid splashes. Avoid inhaling vapour and/or mists. Avoid contact with skin, eyes, and clothing. Wear suitable protective equipment and clothing to prevent eye and skin contact. See Section 8.

**Storage** – Store away from foodstuffs. Protect from frosts. Reversible crystallization may occur at below 10 degrees centigrade.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Exposure Limit Information :** none established

**Respiratory Protection**

None required if the workplace is well ventilated. In case of spray application where there is exposure to mists and vapours, a respiratory protection program meeting Australian and New Zealand Standards AS/NZS-1715 and AS/NZS -1716 requirements must be followed or whenever workplace conditions warrant a respirator's use.

**Eye Protection**

Use a face shield for eye protection (Australian and New Zealand Standards AS/NZS-1337) or approved equivalent. Eye protection worn must be compatible with respiratory protection system employed.

**Hand Protection**

Avoid contact with the skin. Wash hands during work breaks and at the end of shifts. Use chemical resistant gloves (Nitrile rubber, NBR) and protective clothing as necessary to prevent skin contact. Use protective cream for hand protection in conjunction with gloves, and on other skin areas likely to be exposed.

**Engineering Controls (Ventilation)**

Use local exhaust ventilation sufficient to maintain exposure levels below exposure limit concentrations. Refer to Australian Standard AS-1668.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**


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Appearance and colour .....	Light amber liquid
State .....	Liquid
Odour Characteristic .....	Recognisable
pH .....	7.0+/- 1.0
Viscosity .....	Not specified
Specific Gravity (Water = 1) .....	1.0
Vapour Density (Air = 1) .....	No data
Vapour Pressure .....	23 mbar
Melting Point .....	~0°C water
Boiling Point .....	~100°C water
Solubility in Water .....	Soluble
Flash Point .....	Not applicable

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**10. STABILITY AND REACTIVITY**


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Considered stable under normal conditions of use and handling. Avoid frost to prevent reversible crystallization.

**Hazardous decomposition products:**

Oxides of carbon and nitrogen.

**Materials to avoid:**

Anionic compounds

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**11. TOXICOLOGICAL INFORMATION**


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- Acute toxicity:
- LD/LC50 values which are relevant for classification:  
63449-41-2 Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides  
 Oral LD50 600 mg/kg (rat)  
 Dermal LD50 1560 mg/kg (rat)
- 90-43-7 biphenyl-2-ol  
 Oral LD50 ca. 2980 mg/kg (rat)  
 Dermal LD50 > 2000 mg/kg (rat)  
 Inhalation LC50 / 4 h > 36 mg/l (rat)
- Primary irritant effect:
- On the skin: Caustic effect on skin and mucous membranes.
- On the eye: Strong caustic effect.
- Sensitization: No sensitising effect known

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**12. ECOLOGICAL INFORMATION**


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- Toxic to aquatic organisms.  
 Keep out of waterways, drains and sewers.  
 Information about elimination (persistence and degradability):
- Other information: The components are readily biodegradable/to eliminate.
  - Ecotoxicological effects:
  - Aquatic toxicity:

63449-41-2 Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides

EC50 / 48 h  
 IC50 / 72 h  
 LC50 / 96 h  
 0.016 mg/l (Daphnia)  
 0.03 mg/l (Selenastrum capricornutum)  
 0.85 mg/l (rainbow trout)

90-43-7 biphenyl-2-ol  
 EC50 / 48 h  
 EC50 / 72 h  
 LC50 / 96 h  
 1.5 mg/l (Daphnia)  
 0.98 mg/l (Desmodesmus subspicatus)  
 4 mg/l (rainbow trout)

· Behaviour in sewage processing plants:

63449-41-2 Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides

EC50 / 0,5 h 11 mg/l (Activated Sludge)

90-43-7 biphenyl-2-ol

EC50 62 mg/l (Activated Sludge)

· Remark: Depending on concentration, toxic effects on activated sludge organisms are possible.

· AOX-indication:

The product does not contain substances, which can influence the AOX of waste water.

Care should be paid to properly washing out the chloride when performing the AOX method.

The product does not contain any heavy metals.

· General notes:

The product contains materials that are harmful to the environment.

Avoid transfer into the environment.

### 13. DISPOSAL CONSIDERATIONS

Do not empty into drains or waterways.

Dispose of empty containers in accordance with federal, state and local laws.

### 14. TRANSPORT INFORMATION

**Transport information:**

· ADR/RID/ADG (Australia) Class: 8 (C9) Corrosive substances.

· UN-Number: 1760

· Packing group: III

· Label: 8

· Designation of goods: 1760 CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides)

· Remarks: Hazchem Code: 2X

· Maritime transport IMDG/GGVSea:

· IMDG Class: 8

· UN Number: 1760

· Label: 8

· Packing group: III

· EMS Number: F-A,S-B

· Marine pollutant: No

· Correct technical name: CORROSIVE LIQUID, N.O.S. (Quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides)

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### 15. REGULATORY INFORMATION

Australian Inventory of Chemical Substances: All ingredients are listed.

**Workplace Labelling Requirements:**

According to Criteria of the Australian Safety and Compensation Council.

**Risk Phrases**

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|-----|---------------------------------|
| R34 | Causes burns.                   |
| R50 | Very Toxic to aquatic organisms |

**Safety Phrases**

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|-----------|---|
| S24/25    | Avoid contact with skin and eyes.   |
| S36/37/39 | Wear protective clothing, suitable gloves and eye/face protection.                            |
| S26       | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S28       | After contact with skin, wash immediately with plenty of soap and water.                      |

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**16. OTHER INFORMATION**

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<sup>1</sup> Australian Safety and Compensation Council

<sup>2</sup> Australian Dangerous Goods Code – Seventh Edition

The advice and information contained herein is based on raw material supplier's information. Durotech Industries believe the information to be accurate and reliable as at the date supplied, but no representation, guarantee or warranty, expressed or implied, is made to the accuracy, reliability, or completeness of the advice and information. Durotech Industries urges persons receiving this advice and information to make their own determination as to the advice and information's suitability and completeness for their own particular situation.

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