



# Material Safety Data Sheet

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## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER:

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Product Name: **Fortron Complete Fill Inhibitor Concentrate**

Other Names: **CFIC20 – 20 litre**

Recommended Use: Radiator Corrosion Inhibitor - concentrate

Supplier: Fortron Automotive Treatments Pty Ltd  
14-18 Sangiorgio Court, Osborne Park  
Perth, Western Australia 6017  
ACN 008 872 197 ABN 12 008 872 197

Phone: (618) 9202 7800 (Monday – Friday 8.00am – 5.00pm)

Fax: (618) 9202 7851  
[www.fortron.com.au](http://www.fortron.com.au)

Emergency Telephone No: 0433 088 498

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## 2. HAZARDS IDENTIFICATION:

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### **HAZARDOUS ACCORDING TO CRITERIA OF THE NATIONAL OCCUPATIONAL HEALTH AND SAFETY COMMISSION (NOHSC)**

Risk Phrase: R36/38 Irritating to eyes and skin

Safety Phrase: S24/25 Avoid contact with skin and eyes  
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 water  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection  
S46 If swallowed, seek medical advice immediately and show this container or label

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

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|   |  |                         |
|---|--|-------------------------|
| <u>Chemical Description</u>   | Amine, Phosphate, Borate in aqueous solution |                         |
| <u>Chemical Name</u>  | <u>CAS Number</u>                            | <u>Proportion % w/w</u> |
| Triethanolamine Phosphate   | 10017-56-8                                   | 10.0 – 30.0             |
| Boric Acid  | 10043-35-3                                   | 5.0 – 10.0              |
| Diethanolamine  | 111-42-2                                     | 1.0 – 5.0               |
| Triethanolamine   | 102-72-6                                     | 5.0 – 10.0              |
| Other ingredients determined not to be hazardous, including water balance |  |                         |

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### 4. FIRST AID MEASURES:

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|                       |   |
|-----------------------|---|
| Swallowed:            | <b>DO NOT INDUCE</b> without medical advice. If conscious, wash out mouth and give water to drink. If reflexive vomiting occurs, rinse mouth and repeat administration of water. Seek medical attention.<br><br>For advice, contact a Poisons Information Centre. Phone Australia 13 1126; New Zealand 03 4747 000 (Not after May 2005) or 0800 764 766; or a doctor (at once). |
| Eye:                  | If contact with the eye(s) occur, immediately hold the eye open and wash continuously for at least 15 minutes with fresh running water. Seek medical attention.   |
| Skin:                 | Immediately flush with plenty of water for at least 15 minutes. If symptoms develop, seek medical advice.   |
| Inhaled:              | Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.   |
| First Aid Facilities: | Safety shower, mild soap and eye wash facilities.   |
| Advice to Doctor:     | Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.  |

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### 5. FIRE FIGHTING MEASURES:

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|                      |  |
|----------------------|--|
| Flashpoint:          | Not flammable  |
| Extinguishing Media: | This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Use extinguishing media appropriate for surrounding fire. |



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## 5. FIRE FIGHTING MEASURES: continued

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|                                   |  |
|-----------------------------------|--|
| Unusual Fire & Explosion Hazards: | May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions. May evolve oxides of phosphorus (POx) under fire conditions. Not expected to be sensitive to static discharge. |
| Fire Fighting Precautions:        | In case of fire, wear a full fact positive-pressure self-contained breathing apparatus and protective suit.  |
| Hazchem Code:                     | None Allocated   |

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## 6. ACCIDENTAL RELEASE MEASURES:

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|   |   |
|---|---|
| Emergency Procedures:                               | Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for tires, spills, leaks, etc) readily available. Notify appropriate government, occupational health and safety and environmental authorities. |
| Methods and Materials for Containment and Clean Up: | <p>Small Spills: Soak up spill with absorbent material. Place residue in a suitable, covered, properly labelled container. Wash affected area.</p> <p>Large Spills: Contain liquid using absorbent material, by digging trenches or by dyking. Reclaim into recovery or salvage drums or tank truck for proper disposal.</p> <p>Do not contaminate surface water</p>  |

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## 7. HANDLING AND STORAGE:

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|                                |  |
|--------------------------------|--|
| Precautions for Safe Handling: | Follow normal industrial/chemical hygiene practices. Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid generating aerosols and mists. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks etc.) readily available. Ensure all containers are labelled. |
| Conditions for Safe Storage:   | Store in suitable labelled containers. Store the containers tightly closed. Store separately from oxidizers.   |



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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

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National Exposure Standards: Not established for the product.

Exposure Standard means the average concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. It can be of three forms; time-weighted average (TWA), peak limitation, or short term exposure limit (STEL).

Time-weighted average (TWA) is defined as the concentration of that substance over an eight-hour working shift, and apply to an eight-hour day, for a five-day working week over an entire working lifetime. Short Term Exposure Limits (STEL) and Peak Limitations may also be specified for short periods of exposure such as 15 minutes.

The following component(s) have been assigned an exposure standard by NOHSC (Exposure Standards for Atmospheric Contaminants in the Occupational Environment) and/or other Agencies.

| SUBSTANCE       | Occupational Exposure Limits | TWA<br>ppm | TWA<br>mg/m3 |
|-----------------|------------------------------|------------|--------------|
| Triethanolamine | ACGIH/TLV                    |            | 5            |
| Triethanolamine | Australia                    |            | 5            |
| Diethanolamine  | ACGIH/TLV                    | Skin 0.48  | 2            |
| Diethanolamine  | Australia                    | 3          | 13           |
| Diethanolamine  | OSHA/PEL                     | 3          | 15           |

A skin notation refers to the potential significant contribution to overall exposure by the cutaneous route, including mucous membranes and the eyes.

Engineering Controls: General ventilation is recommended. Use local exhaust ventilation if necessary to control airborne mist and vapour

Personal Protective Equipment: *Respiratory Protection:* Respiratory protection is not normally needed. If significant mists, vapours or aerosols are generated an approved respirator is recommended, selected and used in accordance with AS/NZS 1715 and AS/NZS 1716. An organic vapour cartridge with dust/mist prefilter or supplied air may be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

*Hand Protection:* Nitrile gloves, neoprene gloves, rubber gloves, butyl gloves.

*Skin Protection:* Wear impervious apron and boots.

*Eye Protection:* Wear chemical splash goggles.

*Hygiene Recommendations:* Keep an eye wash fountain available. Keep safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before re-use.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES:

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|                            |  |
|----------------------------|--|
| Appearance:                | Dark green liquid                        |
| Odour:                     | Slight                                   |
| pH:                        | 7 – 8                                    |
| Vapour Pressure:           | Same as water                            |
| Vapour Density:            | Not determined                           |
| Boiling Point:             | Not determined                           |
| Melting Point:             | Not determined                           |
| Solubility in Water:       | Complete                                 |
| Specific Gravity:          | 1.13 – 1.16 @ 23°C                       |
| Flashpoint:                | Not flammable                            |
| Flammability Limits:       | LEL Not applicable<br>UEL Not applicable |
| Auto Ignition Temperature: | Not applicable                           |

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## 10. STABILITY AND REACTIVITY:

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|-----------------------------------|---|
| Chemical Stability:               | Stable under normal conditions.   |
| Conditions to Avoid:              | Freezing temperatures   |
| Incompatible Materials:           | Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapours. Certain amines in contact with nitrous acid, organic or inorganic nitrites or atmospheres with high nitrous oxide concentrations may produce N-nitrosamines, many of which are cancer causing agents to laboratory animals. |
| Hazardous Decomposition Products: | Under fire conditions:<br>Oxides of carbon<br>Oxides of nitrogen<br>Oxides of phosphorus  |
| Hazardous Reactions:              | Hazardous polymerisation will not occur.  |

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## 11. TOXICOLOGICAL INFORMATION:

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### HUMAN HEALTH HAZARDS - ACUTE

|            |  |
|------------|--|
| Swallowed: | Not a likely route of exposure. May be harmful if swallowed. There may be irritation to the gastro-intestinal tract. |
| Eye:       | Can cause moderate irritation.   |
| Skin:      | Can cause moderate irritation.   |
| Inhaled:   | Not a likely route of exposure. No adverse effects expected.   |

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**11. TOXICOLOGICAL INFORMATION: continued**

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Chronic: A review of available data does not identify any symptoms from exposure not previously mentioned. Certain amines in contact with nitrous acid, organic or inorganic nitrites or atmospheres with high nitrous oxide concentrations may product N-nitrosamines, many of which are cancer-causing agents to laboratory animals. Repeated or prolonged exposure may cause skin irritation and rash (dermatitis).

**ACUTE TOXICITY DATA**

No toxicity studies have been conducted on this product.

Sensitisation: This product is not expected to be a sensitiser

Carcinogenicity: None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

Human Hazard Characterisation: Based on our hazard characterization, the potential human hazard is: Low

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**12. ECOLOGICAL INFORMATION:**

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Ecotoxicity: No toxicity studies have been conducted on this product.

Persistence and Degradability: No studies have been conducted on this product.

Mobility: No studies have been conducted on this product.

Environmental Hazard Characterization: Based on our hazard characterization, the potential environmental hazard is: Low

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**13. DISPOSAL CONSIDERATIONS:**

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Disposal Methods and Containers: Dispose of in accordance with local, state, and federal regulations. Dispose of wastes in an approved waste treatment/disposal site, in accordance with all applicable regulations. Triple rinse (or equivalent) all containers and offers for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Special Precautions for Landfill or Incineration: Do not dispose of wastes in local sewer or with normal garbage.



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**14. TRANSPORT INFORMATION:**

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UN Number: None Allocated  
UN Proper Shipping Name: None Allocated  
Class and Subsidiary Risk: None Allocated  
Packaging Group: None Allocated  
Special Precaution for user: None Allocated  
Hazchem Code: None Allocated

Proper Shipping Name/Hazard Class may vary by packaging, properties, and mode of transportation.  
Typical Proper Shipping Name for this product are:-

Land Transport (ADG):  
Proper Shipping Name: Product is not regulated during transportation.

Air Transport (ICAO/IATA):  
Proper Shipping Name: Product is not regulated during transportation.

Marine Transport (IMDG/IMO):  
Proper Shipping Name: Product is not regulated during transportation.

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**15. REGULATORY INFORMATION:**

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Australia:

Statement of  
Hazardous Nature: Hazardous according to the criteria of the National Occupational Health  
and Safety Commission (NOHSC).

Hazard Symbols: Irritant / Xi

SUSDP: S5

New Zealand  
NZ Poison Schedule: S4



**16. OTHER INFORMATION:**

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