

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2**

### 1. Product and Company Identification

Product name: Edwards Drystar 2 Coolant  
Synonyms: None  
Item Numbers: H128-10-003, H128-10-004

#### European Contact Details

Edwards, Manor Royal, Crawley  
West Sussex, RH10 9LW, England

##### General enquiries

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#### US Contact Details

Edwards, 301 Ballardvale Street,  
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##### General enquiries

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Toll Free: 1-800-848-9800

24 h Emergency telephone number:

Chemtrec: 1-800-424-9300

### 2. Composition/Information on Ingredients

| Ingredient       | % Weight | CAS No     | Hazard class*  | Risk phrase*   |
|------------------|----------|------------|----------------|----------------|
| Boric acid       | 1 to 5 † | 10043-35-3 | Not applicable | Not applicable |
| Propylene glycol | 70 to 80 | 57-55-6    | Not applicable | Not applicable |

\*Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous under EU Directive (67/548/EEC, as amended) and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable".

† For the undiluted coolant only.

### 3. Hazards Identification

#### EMERGENCY OVERVIEW

This coolant when properly handled according to good working and hygienic practices is not dangerous to human health and the environment.

For short and long term exposure effects, refer to Section 11 Toxicological data.

Eye Effects: May cause irritation.

Skin Effects: May cause irritation.

Ingestion/Oral Effects: May cause irritation of the mouth, throat and digestive tract.

Inhalation Effects: Inhalation of mists and vapours may cause irritation of the nose, throat and respiratory tract.

## MATERIAL SAFETY DATA SHEET

### PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2

Note: Contains chlorocresol (< 1%) which may produce an allergic reaction.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Irritant properties may aggravate pre-existing eye and skin conditions.

| NFPA Hazard codes |   | HMIS Hazard codes |   | Rating System       |
|-------------------|---|-------------------|---|---------------------|
| Health            | 1 | Health            | 1 | 0 = No Hazard       |
| Flammability      | 0 | Flammability      | 0 | 1 = Slight Hazard   |
| Instability       | 0 | Reactivity        | 0 | 2 = Moderate Hazard |
|                   |   |                   |   | 3 = Serious Hazard  |
|                   |   |                   |   | 4 = Severe Hazard   |

#### 4. First Aid Measures

- Eyes:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Skin:** Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion/Oral:** Wash out mouth with water. Keep the affected person warm and at rest. If the coolant has been swallowed and the exposed person is conscious, give small quantities of water to drink. If unconscious, place the person in the recovery position and get medical attention immediately.
- Inhalation:** Keep the exposed person warm and at rest. Get medical attention if symptoms occur. If unconscious, place the affected person in the recovery position and get medical attention immediately.
- Other Information:** Notes to physicians: No specific treatment is indicated. Treat symptomatically. Contact a poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### 5. Firefighting Measures

- Extinguishing Media:** Use an extinguishing agent suitable for the surrounding fire.
- Fire and Explosion Hazard:** In a fire or if heated, a pressure increase will occur and coolant containers may burst. Isolate the scene by removing all persons from the vicinity of the fire. Decomposition products may include carbon oxides.
- Special Protective Equipment for Firefighters:** Firefighters should wear appropriate protective equipment and Self-Contained Breathing Apparatus (SCBA) with a full face-piece operated in positive pressure mode.

For Flammability Properties - refer to Section 9

## MATERIAL SAFETY DATA SHEET

### PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2

#### 6. Accidental Release Measures

- Personal precautions:** Keep unnecessary and unprotected personnel away from the area of the spill. Do not touch or walk through spilt coolant. Provide adequate ventilation. Put on appropriate personal protective equipment (refer to Section 8).
- Environmental precautions:** Avoid dispersal of spilt coolant and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spills:** Move containers from the spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant, or contain and collect spillage with non-combustible, absorbent material (for example sand, earth, vermiculite or diatomaceous earth) and place in container(s). Dispose of as described in Section 13.
- Small spills:** Stop the leak if you can do so without risk. Move containers from the spill area. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of as described in Section 13.

#### 7. Handling and Storage

- Handling:** Put on the appropriate personal protective equipment (refer to Section 8) before handling. Avoid contact with eyes, skin and clothing. Carefully reseal opened containers and keep them upright to prevent leakage.
- Storage:** Store in the original container or an approved alternative made from a compatible material. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Keep containers tightly closed when not in use.

#### 8. Exposure Controls/Personal Protection

##### Exposure Limits:

| Ingredient       | ACGIH - TLV  | OSHA - PEL       | Occupational Exposure Limits EH40 (UK)  |
|------------------|--|------------------|---|
| Boric acid       | 2 mg/m <sup>3</sup> (8h TWA)<br>6 mg/m <sup>3</sup> (15 min. STEL) | None Established | None Established  |
| Propylene glycol | None Established   | None Established | 10 mg/m <sup>3</sup> (WEL 8 h: particulate)<br>474 mg/m <sup>3</sup> (WEL 8 h: vapours and particulate)<br>150 ppm (WEL 8 h: vapours and particulate) |

## MATERIAL SAFETY DATA SHEET

### PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2

#### Personal Protection:

Engineering Measures: No special ventilation is required. Good general ventilation should be sufficient to control worker exposure to airborne vapours. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below the recommended/statutory limits.  
Ensure that eyewash stations and safety showers are available, close to the workstation location.

Respiratory Protection: None required for normal use.

Hand/Skin Protection: Wear chemical-resistant, impervious gloves complying with an approved standard.

Eye/Face Protection: Wear safety glasses with side-shields to EN 166 1F, or other safety eyewear complying with an approved standard, to avoid exposure to liquid splashes, mists or vapours.

Hygiene Measures: After handling, thoroughly wash hands, forearms and face before eating, drinking, smoking and using the lavatory.

Other/General Protection: Wash contaminated clothing before re-use. Thoroughly clean contaminated footwear before re-use.

## 9. Physical and Chemical Properties

|                            |  |                        |                   |       |
|----------------------------|--|------------------------|-------------------|-------|
| Appearance and Odour       | Green liquid with a characteristic odour | Boiling point          | 130 / 266         | °C/°F |
| pH (as supplied)           | 6.4                                      | Freezing Point         | No data available | °C/°F |
| Solubility in Water        | 100%                                     | Auto Ignition          | Not flammable     | °C/°F |
| Volatile Content by Volume | No data available                        | Flash Point            | Not flammable     | °C/°F |
| Specific Gravity           | No data available                        |                        |                   |       |
| Vapour Pressure (mbar)     | No data available                        | Vapour Pressure (Torr) | No data available |       |

## 10. Stability and Reactivity

Stability: Product is stable under normal storage and handling conditions.

Material/Conditions to Avoid: No specific data available.

Hazardous Decomposition: Carbon oxides given off on heating.

Hazardous Polymerisation: Will not occur under normal conditions of storage and use.

## MATERIAL SAFETY DATA SHEET

### PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2

#### 11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 3 Hazards Identification.

##### Animal data:

LD50 value: No data available

LC50 value: No data available

##### Carcinogenicity:

No known carcinogenic effects.

#### 12. Ecological Information

##### Aquatic ecotoxicity

| Ingredient | Test         | Result                | Species | Exposure |
|------------|--------------|-----------------------|---------|----------|
| Boric acid | Intoxication | Acute EC50 777 mg/l   | Daphnia | 48 hours |
|            | Intoxication | Acute EC50 226 mg/l   | Daphnia | 48 hours |
|            | Intoxication | Acute EC50 133 mg/l   | Daphnia | 48 hours |
|            | Mortality    | Acute LC50 >1100 mg/l | Fish    | 96 hours |
|            | Mortality    | Acute LC50 >1021 mg/l | Fish    | 96 hours |
|            | Mortality    | Acute LC50 >800 mg/l  | Fish    | 96 hours |

##### Biodegradability

Other adverse effects: No known significant effects or critical hazards.

Adsorbable Organohalogens (AOX): The product contains organically bound halogens and can contribute to the AOX value in waste water.

#### 13. Disposal Considerations

##### General

Avoid/minimise the generation of waste coolant wherever possible.

Dispose of surplus and non-recyclable coolant using a licensed waste disposal contractor. Dispose of the coolant (undiluted and diluted) in compliance with all applicable environmental protection and waste disposal legislation, and with any regional local authority requirements.

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2**

### Other information

EWC: 16 03 06 organic wastes other than those mentioned in 16 03 05.  
Hazardous waste: Undiluted coolant: Yes.  
Diluted coolant: No.

### 14. Transport Information

This product is not classified as dangerous under transport regulations.

| PARAMETER             | EUROPEAN       | CANADIAN TDG   | UNITED STATES DOT |
|-----------------------|----------------|----------------|-------------------|
| Proper Shipping Name  | Not applicable | Not applicable | Not applicable    |
| Hazard Class          | Not applicable | Not applicable | Not applicable    |
| Identification Number | Not applicable | Not applicable | Not applicable    |
| Shipping Label        | Not applicable | Not applicable | Not applicable    |

### 15. Regulatory Information

#### European Regulatory Information

This product has been classified in accordance with the Dangerous Substances Directive (67/548/EEC, as amended) and the Preparations Directive (88/379/EEC, as amended), implemented in the UK as the Chemical (Hazard Information and Packing) Regulations 1994 (CHIP, as amended).

Classified as dangerous to supply: No

Risk Phrases: Not applicable

Safety Phrases: S37 - Wear suitable gloves

Symbols: None

Additional warning phrases: Contains chlorocresol. May produce an allergic reaction. Material Safety Data Sheet is available for professional user on request.

All ingredients contained in this product are included in EINECS.

#### United States Regulatory Information

All materials contained in this product are on the US Toxic Substances Control Act (TSCA).

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product does not contain toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and 40 CFR Part 372.

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

#### Canadian Regulatory Information

WHMIS Classification: D2B

All ingredients in this product are included in the Canadian DSL.

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2**

### 16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and the EU Safety Data Sheet Directive 91/155/EEC.

Sources of information for this data sheet:

- Cookson Electronics “Drystar 2 0.9 Litre-New” Safety Data Sheet, Version 2, Date of Issue: 29/05/2008.
- Cookson Electronics “Drystar 2 93 Litre-New” Safety Data Sheet, Version 2, Date of Issue: 29/05/2008.
- Cookson Electronics “Drystar 2 205L (Diluted)” Safety Data Sheet, Version 2, Date of Issue: 29/05/2008.

### Glossary:

ACGIH - American Conference of Governmental Industrial Hygienists; ANSI - American National Standards Institute; AOX - Adsorbable Organohalogen; Canadian TDG - Canadian Transportation of Dangerous Goods; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations; Chemtrec - Chemical Transportation Emergency Center (US); CHIP - Chemical (Hazard Information and Packing); DSL - Domestic Substances List; EH40 (UK) - HSE Guidance Note EH40 Occupational Exposure Limits; EINECS - European Inventory of Existing Chemical Substances; EPA - Environmental Protection Agency; EPCRA - Emergency Planning and Community Right-to-Know Act; EU - European Union; EWC - European Waste Catalogue; HMIS - Hazardous Material Information Service; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OSHA - Occupational Safety and Health Administration, US Department of Labour; PEL - Permissible Exposure Limit; SARA (Title III) - Superfund Amendments and Reauthorization Act; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self-Contained Breathing Apparatus; STEL - Short Term Exposure Limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-Weighted Average; US DOT - US Department of Transportation; WEL - Workplace Exposure Limits; WHMIS - Workplace Hazardous Materials Information System.

### Revisions:

Oct. 2008 - Data Sheet updated to reflect the latest supplier safety information.

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