

## 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  
Email: info@edwardsvacuum.com

#### General enquiries

UK : +44 (0)1293 528844  
France : +(33) 1 47 98 24 01  
Germany : +(49) 6420-82-410  
Italy : +(39) 0248-4471

#### US Contact Details

Edwards, Three Highwood Drive, Suite 3-10E,  
Highwood Office Park, Tewksbury, MA 01876

#### General enquiries

+(1) 978-658-5410  
Toll Free: 1-800-848-9800

24 h Emergency telephone number:

Chemtrec: 1-800-424-9300

### 2. 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.

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

## MATERIAL SAFETY DATA SHEET

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

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

### 3. 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 No 1272/2008 (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.

### 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.

## MATERIAL SAFETY DATA SHEET

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

### 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.

### 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.

## MATERIAL SAFETY DATA SHEET

<b>PRODUCT NAME : COOLANT - EDWARDS DRYSTAR 2</b>
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### 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) 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) 474 mg/m <sup>3</sup> (WEL 8 h: vapours and particulate) 150 ppm (WEL 8 h: vapours and particulate)

#### 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	

## MATERIAL SAFETY DATA SHEET

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

### 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.

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

## MATERIAL SAFETY DATA SHEET

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

### 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.

#### 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 EU Regulation No 1272/2008 (as amended) on the Classification, Labelling and Packaging of Substances and Mixtures.

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.

## MATERIAL SAFETY DATA SHEET

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

### 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.

### 16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

- 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 Organohalogenes; Canadian TDG - Canadian Transportation of Dangerous Goods; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations; Chemtrec - Chemical Transportation Emergency Center (US); 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.

June 2010 - Data Sheet updated to reflect the latest regulatory information.

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