

**SAFETY DATA SHEET**  
**Lyreco HFC Free Whiteboard Cleaning Foam Multi Purpose Cleaner**  
According to Regulation (EC) No 1907/2006, Annex II, as amended.

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

**Product name** Lyreco HFC Free Whiteboard Cleaning Foam Multi Purpose Cleaner  
**Product number** 978.587, ZP

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses** Detergent.  
**Uses advised against** No specific uses advised against are identified.

**1.3. Details of the supplier of the safety data sheet**

**Supplier** LYRECO  
Rue du 19 mars 1962, F-59770,  
Marly,  
France  
+33 (0) 3 27 23 64 00  
fr.fds@lyreco.com

**1.4. Emergency telephone number**

**Emergency telephone** IN CASE OF EMERGENCY CALL:  
+44 1865 407333 (24hr, Provided by Carechem 24)  
+353 (0)1 809 2166 (Beaumont Hospital, Republic of Ireland only, 8am-10pm, 7 days a week)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

**Physical hazards** Aerosol 1 - H222, H229  
**Health hazards** Not Classified  
**Environmental hazards** Not Classified

**2.2. Label elements****Hazard pictograms**

**Signal word** Danger

**Hazard statements** H229 Pressurised container: may burst if heated.  
H222 Extremely flammable aerosol.

**Precautionary statements** P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Do not pierce or burn, even after use.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
P501 Dispose of contents/ container in accordance with national regulations.

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**Detergent labelling** < 5% aliphatic hydrocarbons, < 5% anionic surfactants, < 5% non-ionic surfactants, < 5% perfumes, Contains D-LIMONENE

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>Petroleum gases, liquefied</b> <span style="float: right;"><b>1-5%</b></span> CAS number: 68476-85-7                      EC number: 270-704-2
<b>Classification</b> Flam. Gas 1 - H220
<b>Propan-2-ol</b> <span style="float: right;"><b>1-5%</b></span> CAS number: 67-63-0                      EC number: 200-661-7                      REACH registration number: 01-2119457558-25-XXXX
<b>Classification</b> Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336
<b>2-Butoxyethanol</b> <span style="float: right;"><b>1-5%</b></span> CAS number: 111-76-2                      EC number: 203-905-0                      REACH registration number: 01-2119475108-36-XXXX
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
<b>Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b> <span style="float: right;"><b>1-5%</b></span> CAS number: 64742-47-8                      EC number: 926-141-6                      REACH registration number: 01-2119456620-43-XXXX
<b>Classification</b> Asp. Tox. 1 - H304

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<b>2-Aminoethanol</b> <span style="float: right;"><b>&lt;1%</b></span> CAS number: 141-43-5                      EC number: 205-483-3                      REACH registration number: 01-2119486455-28-XXXX
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335
<b>Benzyl-C12-14-alkyldimethylammonium chlorides</b> <span style="float: right;"><b>&lt;1%</b></span> CAS number: 68424-85-1                      EC number: 939-350-2                      REACH registration number: 01-2119970550-39-0000  M factor (Acute) = 10                      M factor (Chronic) = 1
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410
<b>Sodium hydroxide</b> <span style="float: right;"><b>&lt;1%</b></span> CAS number: 1310-73-2                      EC number: 215-185-5
<b>Classification</b> Skin Corr. 1A - H314 Eye Dam. 1 - H318
<b>Ethanol</b> <span style="float: right;"><b>&lt;1%</b></span> CAS number: 64-17-5                      EC number: 200-578-6                      REACH registration number: 01-2119457610-43-XXXX
<b>Classification</b> Flam. Liq. 2 - H225
<b>2,6-Di-tert-butyl-p-cresol</b> <span style="float: right;"><b>&lt;1%</b></span> CAS number: 128-37-0                      EC number: 204-881-4  M factor (Acute) = 1                      M factor (Chronic) = 1
<b>Classification</b> Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

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### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Skin contact</b>	Rinse with water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

### 4.2. Most important symptoms and effects, both acute and delayed

<b>General information</b>	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Spray/mists may cause respiratory tract irritation.
<b>Ingestion</b>	Due to the physical nature of this product, it is unlikely that ingestion will occur.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Eye contact</b>	May be slightly irritating to eyes. May cause discomfort.

### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
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## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

### 5.3. Advice for firefighters

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<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.
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#### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid discharge into drains or watercourses or onto the ground.
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#### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Do not allow material to enter confined spaces, due to the risk of explosion. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.
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#### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with eyes. Avoid inhalation of vapours and spray/mists.
<b>Advice on general occupational hygiene</b>	Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

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### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep away from heat, sparks and open flame. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Chemical storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### **Petroleum gases, liquefied**

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m<sup>3</sup>

##### **Propan-2-ol**

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

##### **2-Butoxyethanol**

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m<sup>3</sup>

Sk

##### **2-Aminoethanol**

Long-term exposure limit (8-hour TWA): WEL 1 ppm 2.5 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 3 ppm 7.6 mg/m<sup>3</sup>

Sk

##### **Sodium hydroxide**

Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup>

##### **Ethanol**

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m<sup>3</sup>

##### **2,6-Di-tert-butyl-p-cresol**

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

### 8.2. Exposure controls

#### **Protective equipment**



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<b>Appropriate engineering controls</b>	Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.
<b>Eye/face protection</b>	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
<b>Hand protection</b>	No specific requirements are anticipated under normal conditions of use. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
<b>Other skin and body protection</b>	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
<b>Hygiene measures</b>	Provide eyewash station. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
<b>Respiratory protection</b>	No specific requirements are anticipated under normal conditions of use. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Aerosol.
<b>Colour</b>	No data available.
<b>Odour</b>	Lemon.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 7-8
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	Technically not feasible.

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<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	No specific test data are available. Extremely flammable aerosol.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Bulk density</b>	0.895 kg/l
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

**Other information** No information required.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None known.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated

### 10.5. Incompatible materials

**Materials to avoid** No specific material or group of materials is likely to react with the product to produce a hazardous situation.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral



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<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b>ATE oral (mg/kg)</b>	158,859.06
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b>ATE dermal (mg/kg)</b>	100,083.03
<b><u>Acute toxicity - inhalation</u></b>	
<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b>ATE inhalation (vapours mg/l)</b>	1,000.83
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Based on available data the classification criteria are not met.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b>IARC carcinogenicity</b>	Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b><u>General information</u></b>	
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Spray/mists may cause respiratory tract irritation.
<b>Ingestion</b>	Due to the physical nature of this product, it is unlikely that ingestion will occur.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Eye contact</b>	May be slightly irritating to eyes. May cause discomfort.

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**Route of exposure** Inhalation Skin and/or eye contact

**Target organs** No specific target organs known.

### Toxicological information on ingredients.

#### Petroleum gases, liquefied

<b>Toxicological effects</b>	Not regarded as a health hazard under current legislation.
<b><u>Acute toxicity - oral</u></b>	
<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Acute toxicity - inhalation</u></b>	
<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Based on available data the classification criteria are not met.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	May cause genetic defects.
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	May cause cancer.
<b>IARC carcinogenicity</b>	None of the ingredients are listed or exempt.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not relevant. Gas.

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<b>General information</b>	May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. May cause genetic defects. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	Due to the physical nature of this product, it is unlikely that ingestion will occur.
<b>Skin contact</b>	No specific symptoms known.
<b>Eye contact</b>	No specific symptoms known.
<b>Route of exposure</b>	Inhalation Skin and/or eye contact
<b>Target organs</b>	No specific target organs known.

### Propan-2-ol

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity** None of the ingredients are listed or exempt.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

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### Specific target organ toxicity - single exposure

**STOT - single exposure** STOT SE 3 - H336 May cause drowsiness or dizziness.

**Target organs** Central nervous system

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

### General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

### Inhalation

A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

### Ingestion

No specific symptoms known.

### Skin contact

No specific symptoms known.

### Eye contact

Irritating to eyes.

### Route of exposure

Ingestion Inhalation Skin and/or eye contact

### Target organs

Central nervous system

## 2-Butoxyethanol

### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Acute Tox. 4 - H302 Harmful if swallowed.

**ATE oral (mg/kg)** 500.0

### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Acute Tox. 4 - H312 Harmful in contact with skin.

**ATE dermal (mg/kg)** 1,100.0

### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Acute Tox. 4 - H332 Harmful if inhaled.

**ATE inhalation (vapours mg/l)** 11.0

### Skin corrosion/irritation

**Animal data** Irritating.

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

### Skin sensitisation

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<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b>IARC carcinogenicity</b>	None of the ingredients are listed or exempt.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b><u>General information</u></b>	
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.
<b>Ingestion</b>	May cause discomfort if swallowed. Stomach pain. Nausea, vomiting.
<b>Skin contact</b>	Redness. Irritating to skin.
<b>Eye contact</b>	Irritating to eyes.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	No specific target organs known.
	<b><u>Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</u></b>
<b><u>Acute toxicity - oral</u></b>	
<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Acute toxicity - inhalation</u></b>	
<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Skin corrosion/irritation</u></b>	

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<b>Animal data</b>	Repeated exposure may cause skin dryness or cracking.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitisation</u></b>	
<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitisation</u></b>	
<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b>IARC carcinogenicity</b>	None of the ingredients are listed or exempt.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
<b><u>General information</u></b>	
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Eye contact</b>	No specific symptoms known.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	No specific target organs known.

### SECTION 12: Ecological information

## Lyreco HFC Free Whiteboard Cleaning Foam Multi Purpose Cleaner

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

### Ecological information on ingredients.

#### Petroleum gases, liquefied

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

#### Propan-2-ol

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

#### 2-Butoxyethanol

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

#### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

### 12.1. Toxicity

**Toxicity** Based on available data the classification criteria are not met.

### Ecological information on ingredients.

#### Petroleum gases, liquefied

**Toxicity** Based on available data the classification criteria are not met.

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 147.54 mg/l, Freshwater fish  
Estimated value.

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 16.33 mg/l, Daphnia magna  
Estimated value.

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 96 hours: 11.89 mg/l, Freshwater algae  
Estimated value.

#### Propan-2-ol

**Toxicity** Based on available data the classification criteria are not met.

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 10000 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 24 hours: >10000 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 7 days: 1800 mg/l, Scenedesmus quadricauda

#### 2-Butoxyethanol

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<b>Toxicity</b>	Based on available data the classification criteria are not met.
<b><u>Acute aquatic toxicity</u></b>	
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 1474 mg/l, Oncorhynchus mykiss (Rainbow trout)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 1550 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: 911 mg/l, Pseudokirchneriella subcapitata
<b><u>Chronic aquatic toxicity</u></b>	
<b>Chronic toxicity - fish early life stage</b>	NOEL, 21 days: >100 mg/l, Brachydanio rerio (Zebra Fish)
<b>Chronic toxicity - aquatic invertebrates</b>	NOEC, 21 days: 100 mg/l, Daphnia magna

### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

<b>Toxicity</b>	Based on available data the classification criteria are not met.
<b><u>Acute aquatic toxicity</u></b>	
<b>Acute toxicity - fish</b>	LL <sub>50</sub> , 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)
<b>Acute toxicity - aquatic invertebrates</b>	EL <sub>50</sub> , 48 hours: >10000 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EL <sub>50</sub> , 72 hours: >1000 mg/l, Pseudokirchneriella subcapitata
<b><u>Chronic aquatic toxicity</u></b>	
<b>Chronic toxicity - fish early life stage</b>	NOELR, 28 days: 0.173 mg/l, Oncorhynchus mykiss (Rainbow trout), Estimated value.
<b>Chronic toxicity - aquatic invertebrates</b>	NOELR, 21 days: 1.22 mg/l, Daphnia magna, Estimated value.

### 12.2. Persistence and degradability

**Persistence and degradability** The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

### Ecological information on ingredients.

#### Petroleum gases, liquefied

<b>Persistence and degradability</b>	The degradability of the product is not known.
<b>Biodegradation</b>	Water - Degradation 100%: 385.5 hours

#### Propan-2-ol

<b>Persistence and degradability</b>	The degradability of the product is not known.
<b>Biodegradation</b>	Water - Degradation 53%: 5 days
<b>Biological oxygen demand</b>	1.19-1.72 g O <sub>2</sub> /g substance



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**Chemical oxygen demand** 2.23 g O<sub>2</sub>/g substance

### 2-Butoxyethanol

**Persistence and degradability** The degradability of the product is not known.

**Biodegradation** Water - Degradation 90.4%: 28 days

### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Persistence and degradability** The degradability of the product is not known.

**Biodegradation** Water - Degradation ~5%: 3 days  
Water - Degradation 69%: 28 days

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### Petroleum gases, liquefied

**Bioaccumulative potential** No data available on bioaccumulation.

#### Propan-2-ol

**Bioaccumulative potential** No data available on bioaccumulation.

#### 2-Butoxyethanol

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** log Kow: 0.81

### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Scientifically unjustified.

### 12.4. Mobility in soil

**Mobility** The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

### Ecological information on ingredients.

#### Petroleum gases, liquefied

**Mobility** Not relevant.

#### Propan-2-ol

**Mobility** No data available.

#### 2-Butoxyethanol

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**Mobility** No data available.

**Surface tension** 29.53 mN/m @ 20°C

### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Mobility** No data available.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### Ecological information on ingredients.

##### Petroleum gases, liquefied

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

##### Propan-2-ol

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

##### 2-Butoxyethanol

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

#### 12.6. Other adverse effects

**Other adverse effects** None known.

#### Ecological information on ingredients.

##### Petroleum gases, liquefied

**Other adverse effects** None known.

##### Propan-2-ol

**Other adverse effects** None known.

##### 2-Butoxyethanol

**Other adverse effects** None known.

### Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics

**Other adverse effects** None known.

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

## Lyreco HFC Free Whiteboard Cleaning Foam Multi Purpose Cleaner

**General information** The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

### SECTION 14: Transport information

**General** For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

#### 14.1. UN number

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
UN No. (ADN)	1950

#### 14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS
Proper shipping name (ADN)	AEROSOLS

#### 14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

#### Transport labels



#### 14.4. Packing group

None.

#### 14.5. Environmental hazards

## Lyreco HFC Free Whiteboard Cleaning Foam Multi Purpose Cleaner

### Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**EmS** F-D, S-U

**ADR transport category** 2

**Tunnel restriction code** (D)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to** Not relevant.

**Annex II of MARPOL 73/78  
and the IBC Code**

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**National regulations** Health and Safety at Work etc. Act 1974 (as amended).  
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).  
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].  
EH40/2005 Workplace exposure limits.  
The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
Commission Regulation (EU) No 453/2010 of 20 May 2010.  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).  
Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).  
Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

## Lyreco HFC Free Whiteboard Cleaning Foam Multi Purpose Cleaner

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>Kow: Octanol-water partition coefficient.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> <p>IARC: International Agency for Research on Cancer.</p> <p>BCF: Bioconcentration Factor.</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p>
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Aerosol 1 - H222, H229: : Expert judgement.
<b>Training advice</b>	Read and follow manufacturer's recommendations.
<b>Issued by</b>	Toni Ashford
<b>Revision date</b>	12/04/2019
<b>Revision</b>	2.2
<b>SDS number</b>	2459
<b>Hazard statements in full</b>	<p>H220 Extremely flammable gas.</p> <p>H222 Extremely flammable aerosol.</p> <p>H225 Highly flammable liquid and vapour.</p> <p>H229 Pressurised container: may burst if heated.</p> <p>H302 Harmful if swallowed.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H312 Harmful in contact with skin.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H400 Very toxic to aquatic life.</p> <p>H410 Very toxic to aquatic life with long lasting effects.</p>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.