

# 467638 Lyreco Flipchart Marker B/Tip Black

Lyreco Group (Lyreco France)

Chemwatch Hazard Alert Code: 3

Chemwatch: 35-3312

Version No: 2.1.1.1

Safety Data Sheet (Conforms to Regulations (EC) No 453/2010)

Issue Date: 04/18/2013

Print Date: 02/19/2015

Initial Date: Not Available

S.REACH.GBR.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### 1.1. Product Identifier

Product name	467638 Lyreco Flipchart Marker B/Tip Black
Synonyms	Not Available
Other means of identification	Not Available
Index number	Not Applicable

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

Relevant identified uses	Marker pen. NOTE: Information on this SDS refers to ink used in pens and markers, however, it applies to these inks in bulk.
Uses advised against	Not Applicable

### 1.3. Details of the manufacturer/importer

Registered company name	Lyreco Group (Lyreco France)
Address	Rue du 19 Mars 1962 Marly 9770 France
Telephone	+33 3 27 23 64 00 (9a.m-5p.m. CET.)
Fax	Not Available
Website	Not Available
Email	Not Available

### 1.4. Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	+33 3 27 23 64 00 (9a.m-5p.m. CET.)
Other emergency telephone numbers	Not Available

## SECTION 2 HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**Not considered a dangerous mixture according to directive 1999/45/EC, Reg. (EC) No 1272/2008 (if applicable) and their amendments. Not classified as Dangerous Goods for transport purposes.**

#### CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability	1	
Toxicity	0	
Body Contact	0	
Reactivity	1	
Chronic	3	

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

DSD classification	In case of mixtures, classification has been prepared by following DPD (Directive 1999/45/EC) and CLP Regulation (EC) No 1272/2008 regulations
DPD classification	Not Applicable
Classification according to regulation (EC) No 1272/2008 [CLP]	Not Applicable

### 2.2. Label elements

CLP label elements	Not Applicable
--------------------	----------------

SIGNAL WORD **NOT APPLICABLE**

#### Hazard statement(s)

Not Applicable

#### Supplementary statement(s)

EUH210	Safety data sheet available on request
--------	--

Continued...

**Precautionary statement(s) Prevention**

Not Applicable

<b>P101</b>	If medical advice is needed, have product container or label at hand.
-------------	---

**Precautionary statement(s) Response**

Not Applicable

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**2.3. Other hazards**

	Cumulative effects may result following exposure*.
	May be harmful to the foetus/ embryo*.
	May affect fertility*.

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****3.1. Substances**

See 'Composition on ingredients' in Section 3.2

**3.2. Mixtures**

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to directive 67/548/EEC [DSD]	Classification according to regulation (EC) No 1272/2008 [CLP]
		ink containing,		
1.111-46-6 2.203-872-2 3.603-140-00-6 4.01-2119457857-21-XXXX	2.5-10	<a href="#">diethylene glycol</a>	R22 <sup>[2]</sup>	Acute Tox. 4 *; H302 <sup>[3]</sup>
1.107-21-1 2.203-473-3 3.603-027-00-1 4.01-2119456816-28-XXXX	2.5-10	<a href="#">ethylene glycol</a>	R22 <sup>[2]</sup>	Acute Tox. 4 *; H302 <sup>[3]</sup>
1. Not Available 2. Not Available 3. Not Available 4. Not Available	>60	ingredients, non-hazardous	Not Applicable	Not Applicable

**Legend:** 1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I; 3. Classification drawn from EC Directive 1272/2008 - Annex VI  
4. Classification drawn from C&L

**SECTION 4 FIRST AID MEASURES****4.1. Description of first aid measures**

<b>General</b>	<ul style="list-style-type: none"> <li>▶ If swallowed do <b>NOT</b> induce vomiting.</li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul> <p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> <p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Eye Contact</b>	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with water.</li> <li>▶ If irritation continues, seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>

**Ingestion**

- ▶ If swallowed do **NOT** induce vomiting.
- ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- ▶ Observe the patient carefully.
- ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- ▶ Seek medical advice.

**4.2 Most important symptoms and effects, both acute and delayed**

See Section 11

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

Treat symptomatically.

**SECTION 5 FIREFIGHTING MEASURES****5.1. Extinguishing media**

- ▶ Alcohol stable foam.

**5.2. Special hazards arising from the substrate or mixture****Fire Incompatibility**

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

**5.3. Advice for firefighters****Fire Fighting**

- ▶ Alert Fire Brigade and tell them location and nature of hazard.

**Fire/Explosion Hazard**

- ▶ Combustible.

**SECTION 6 ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

See section 8

**6.2. Environmental precautions**

See section 12

**6.3. Methods and material for containment and cleaning up****Minor Spills**

- ▶ Remove all ignition sources.

**Major Spills**

Moderate hazard.

**6.4. Reference to other sections**

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

**SECTION 7 HANDLING AND STORAGE****7.1. Precautions for safe handling****Safe handling**

- ▶ Limit all unnecessary personal contact.

**Fire and explosion protection**

See section 5

**Other information**

- ▶ Store in original containers.

**7.2. Conditions for safe storage, including any incompatibilities****Suitable container**

- ▶ Metal can or drum
- ▶ Packaging as recommended by manufacturer.

**Storage incompatibility**

- ▶ Avoid strong acids, bases.

**PACKAGE MATERIAL INCOMPATIBILITIES**

Not Available

**7.3. Specific end use(s)**

See section 1.2

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1. Control parameters****DERIVED NO EFFECT LEVEL (DNEL)**

Not Available

**PREDICTED NO EFFECT LEVEL (PNEC)**

Not Available

**OCCUPATIONAL EXPOSURE LIMITS (OEL)****INGREDIENT DATA**

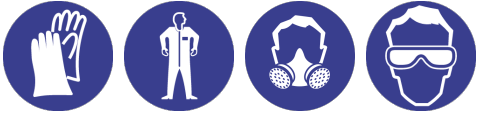
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs)	diethylene glycol	2,2'-Oxydiethanol	101 mg/m <sup>3</sup> / 23 ppm	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs)	ethylene glycol	Ethane-1,2-diol particulate / Ethane-1,2-diol vapour	10 mg/m <sup>3</sup> / 52 mg/m <sup>3</sup> / 20 ppm	10 mg/m <sup>3</sup> / 4 mg/m <sup>3</sup> / 40 ppm	Not Available	Sk
European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English)	ethylene glycol	Ethylene glycol	52 mg/m <sup>3</sup> / 20 ppm	104 mg/m <sup>3</sup> / 40 ppm	Not Available	Skin
EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)	ethylene glycol	Ethylene glycol	52 mg/m <sup>3</sup> / 20 ppm	104 mg/m <sup>3</sup> / 40 ppm	Not Available	Skin

**EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
diethylene glycol	Diethylene glycol	6.9155 ppm	80 ppm	250 ppm
ethylene glycol	Ethylene glycol	10 ppm	40 ppm	60 ppm

Ingredient	Original IDLH	Revised IDLH
diethylene glycol	Not Available	Not Available
ethylene glycol	Not Available	Not Available
ingredients, non-hazardous	Not Available	Not Available

**8.2. Exposure controls**

<b>8.2.1. Appropriate engineering controls</b>	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
<b>8.2.2. Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>Safety glasses with side shields</li> <li>Chemical goggles.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>Overalls.</li> </ul>
<b>Thermal hazards</b>	Not Available

**Recommended material(s)****GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index"**.

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

467638 Lyreco Flipchart Marker B/Tip Black

Material	CPI
NITRILE	A

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

**Respiratory protection**

Type A-P Filter of sufficient capacity.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

**8.2.3. Environmental exposure controls**

See section 12

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Black liquid with a characteristic odour; mixes with water.		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	225 (ignition temp.)
<b>pH (as supplied)</b>	8	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	100	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	111	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Applicable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	53.0	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	0.7	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	2.3	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Miscible	<b>pH as a solution(1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## 9.2. Other information

	Not Available
--	---------------

## SECTION 10 STABILITY AND REACTIVITY

<b>10.1.Reactivity</b>	See section 7.2
<b>10.2.Chemical stability</b>	▶ Unstable in the presence of incompatible materials.
<b>10.3. Possibility of hazardous reactions</b>	See section 7.2
<b>10.4. Conditions to avoid</b>	See section 7.2
<b>10.5. Incompatible materials</b>	See section 7.2
<b>10.6. Hazardous decomposition products</b>	See section 5.3

## SECTION 11 TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

<b>Inhaled</b>	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).
<b>Ingestion</b>	The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion".
<b>Skin Contact</b>	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models).
<b>Eye</b>	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
<b>Chronic</b>	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

	TOXICITY	IRRITATION
<b>467638 Lyreco Flipchart Marker B/Tip Black</b>	Not Available	Not Available
<b>diethylene glycol</b>	Dermal (rabbit) LD50: 11890 mg/kg <sup>[2]</sup>	Eye (rabbit) 50 mg mild
	Oral (rat) LD50: 12000 mg/kg <sup>[2]</sup>	Skin (human): 112 mg/3d-I mild
		Skin (rabbit): 500 mg mild
<b>ethylene glycol</b>	Dermal (rabbit) LD50: 9530 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg/1h - mild
	Inhalation (rat) LC50: 50.1 mg/L/8 hr <sup>[2]</sup>	Eye (rabbit): 12 mg/m <sup>3</sup> /3D
	Oral (rat) LD50: 4700 mg/kg <sup>[2]</sup>	Eye (rabbit): 1440mg/6h-moderate
		Eye (rabbit): 500 mg/24h - mild
		Skin (rabbit): 555 mg(open)-mild
<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's msds unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

<b>467638 Lyreco Flipchart Marker B/Tip Black</b>	No significant acute toxicological data identified in literature search.
<b>DIETHYLENE GLYCOL</b>	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
<b>ETHYLENE GLYCOL</b>	For ethylene glycol: Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. [Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica] Substance is reproductive effector in rats (birth defects). Mutagenic to rat cells.

<b>Acute Toxicity</b>	☹	<b>Carcinogenicity</b>	☹
<b>Skin Irritation/Corrosion</b>	☹	<b>Reproductivity</b>	☹
<b>Serious Eye Damage/Irritation</b>	☹	<b>STOT - Single Exposure</b>	☹
<b>Respiratory or Skin sensitisation</b>	☹	<b>STOT - Repeated Exposure</b>	☹
<b>Mutagenicity</b>	☹	<b>Aspiration Hazard</b>	☹

**Legend:** ✔ – Data required to make classification available  
✘ – Data available but does not fill the criteria for classification  
☹ – Data Not Available to make classification

**CMR STATUS**

<b>SKIN</b>	ethylene glycol	European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) - Skin	Skin
-------------	-----------------	---	------

**SECTION 12 ECOLOGICAL INFORMATION****12.1. Toxicity**

**DO NOT** discharge into sewer or waterways.

**12.2. Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
diethylene glycol	LOW	LOW
ethylene glycol	LOW (Half-life = 24 days)	LOW (Half-life = 3.46 days)

**12.3. Bioaccumulative potential**

Ingredient	Bioaccumulation
diethylene glycol	LOW (BCF = 180)
ethylene glycol	LOW (BCF = 200)

**12.4. Mobility in soil**

Ingredient	Mobility
diethylene glycol	HIGH (KOC = 1)
ethylene glycol	HIGH (KOC = 1)

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

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT and vPvB Criteria fulfilled?	Not Available	Not Available	Not Available

**12.6. Other adverse effects**

No data available

**SECTION 13 DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods**

<b>Product / Packaging disposal</b>	▶ Recycle wherever possible or consult manufacturer for recycling options.
<b>Waste treatment options</b>	Not Available
<b>Sewage disposal options</b>	Not Available

**SECTION 14 TRANSPORT INFORMATION****Labels Required**

<b>Marine Pollutant</b>	NO
-------------------------	----

<b>HAZCHEM</b>	Not Applicable
----------------	----------------

**Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

<b>14.1. UN number</b>	Not Applicable	
<b>14.2. Packing group</b>	Not Applicable	
<b>14.3. UN proper shipping name</b>	Not Applicable	
<b>14.4. Environmental hazard</b>	No relevant data	
<b>14.5. Transport hazard class(es)</b>	Class	Not Applicable
	Subrisk	Not Applicable
<b>14.6. Special precautions for user</b>	Special provisions	Not Applicable
	Limited quantity	Not Applicable

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

<b>14.1. UN number</b>	Not Applicable	
<b>14.2. Packing group</b>	Not Applicable	
<b>14.3. UN proper shipping name</b>	Not Applicable	
<b>14.4. Environmental hazard</b>	No relevant data	
<b>14.5. Transport hazard class(es)</b>	ICAO/IATA Class	Not Applicable
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	Not Applicable
<b>14.6. Special precautions for user</b>	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

<b>14.1. UN number</b>	Not Applicable	
<b>14.2. Packing group</b>	Not Applicable	
<b>14.3. UN proper shipping name</b>	Not Applicable	
<b>14.4. Environmental hazard</b>	Not Applicable	
<b>14.5. Transport hazard class(es)</b>	IMDG Class	Not Applicable
	IMDG Subrisk	Not Applicable
<b>14.6. Special precautions for user</b>	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

**Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

<b>14.1. UN number</b>	Not Applicable	
<b>14.2. Packing group</b>	Not Applicable	
<b>14.3. UN proper shipping name</b>	Not Applicable	
<b>14.4. Environmental hazard</b>	No relevant data	
<b>14.5. Transport hazard class(es)</b>	Not Applicable	Not Applicable
<b>14.6. Special precautions for user</b>	Classification code	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

**Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code**

Source	Ingredient	Pollution Category
--------	------------	--------------------

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	ethylene glycol	Y
---	-----------------	---

## SECTION 15 REGULATORY INFORMATION

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

diethylene glycol(111-46-6) is found on the following regulatory lists	"European Customs Inventory of Chemical Substances ECICS (English)", "EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "UK Workplace Exposure Limits (WELs)", "European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI", "European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31"
ethylene glycol(107-21-1) is found on the following regulatory lists	"EU Consolidated List of Indicative Occupational Exposure Limit Values (IOELVs)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Lithuanian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Slovak)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Polish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (French)", "European Customs Inventory of Chemical Substances ECICS (English)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Slovenian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Swedish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Italian)", "European Trade Union Confederation (ETUC) Priority List for REACH Authorisation", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Danish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Maltese)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (English)", "European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Latvian)", "UK Workplace Exposure Limits (WELs)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (German)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Spanish)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Finnish)", "European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Greek)", "European Union (EU) Annex I to Directive 67/548/EEC on Classification and Labelling of Dangerous Substances - updated by ATP: 31", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Portuguese)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Hungarian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Romanian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Czech)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Bulgarian)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Dutch)", "European Union (EU) First List of Indicative Occupational Exposure Limit Values (IOELVs) (Estonian)"

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 67/548/EEC, 1999/45/EC, 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Regulation (EU) No 453/2010, Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008 and their amendments as well as the following British legislation: - The Control of Substances Hazardous to Health Regulations (COSHH) 2002 - COSHH Essentials - The Management of Health and Safety at Work Regulations 1999

### 15.2. Chemical safety assessment

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

#### ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
diethylene glycol	111-46-6	603-140-00-6	01-2119457857-21-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4	GHS07, Wng	H302
2	Acute Tox. 4, STOT RE 2, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2	Wng, GHS08, Dgr	H302, H373, H319, H336, H315

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
ethylene glycol	107-21-1	603-027-00-1	01-2119456816-28-XXXX

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4	GHS07, Wng	H302
2	Acute Tox. 4, Skin Irrit. 2, Muta. 1B, Repr. 1B, STOT SE 1, STOT RE 1, Aquatic Chronic 3, Eye Irrit. 2, Org. Perox. G	Wng, GHS08, Dgr	H302, H319, H332, H340, H360, H370, H372, H412, H315

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

## SECTION 16 OTHER INFORMATION

### Full text Risk and Hazard codes

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H360	May damage fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure



<b>H373</b>	May cause damage to organs through prolonged or repeated exposure
<b>H412</b>	Harmful to aquatic life with long lasting effects
<b>R22</b>	Harmful if swallowed.

**Other information****DSD / DPD label elements**

Not Applicable

Relevant risk statements are found in section 2.1

<b>Indication(s) of danger</b>	Not Applicable
--------------------------------	----------------

**SAFETY ADVICE**

<b>S02</b>	Keep out of reach of children.
------------	--------------------------------

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net/references](http://www.chemwatch.net/references)

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.