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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Trade name/designation : ES COMPLEAT EG CONCENTRATE  
Product code : CC2820 (3.785 L); CC2821 (208 L Drum); CC2822 (Bulk); CC2847 (18.9 L Pail); CC2823 (Totes); CC2747M (5L); CC2749M (20L); CC2821M (208 L Drum); CC2851M (1000L container); CC2822M (Bulk); CC2822 RS (Bulk); CC2822 RSJ (5L); CC2822 RSP (20L); CC2822 RSD (208L); CC2822 RST (1000L)

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

Main use category : Professional use  
Specific use(s) : Coolant /  
Anti-freezing agent

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

Company : Cummins Filtration  
Unit 3 / Valley Drive / Valley Park / Rugby  
CV21 1 TN Warwickshire , The United Kingdom  
Telephone +44 (0)1788 853600

Company : Cummins Filtration  
Zone Industrielle du Grand Guelen  
29556 Quimper Cedex 9 , France  
Telephone +33 (0) 2 98 76 49 49

Company : Cummins Filtration  
Catenbergstraat 1  
2840 Rumst , Belgium  
Telephone +32 3 456 3000  
E-mail: productinfosds@cummins.com

Company : OOO Cummins  
Klyazma 1G, Khimki, Moscow Region  
141402 , Russia  
Telephone +7 495 926 86 24/25  
E-mail: dbu.russia@cummins.com

### 1.4. Emergency telephone number

Emergency telephone : +44 (0) 1235 239670 (Carechem24) (Only available during office hours.)

Emergency telephone :

IRELAND (REPUBLIC OF)

National Poisons Information Centre  
Beaumont Hospital

+353 18 37 99 64/+353 1 809 21 66

UNITED KINGDOM


National Poisons Information Service  
(Newcastle Centre)  
Regional Drugs and Therapeutics Centre,  
Wolfson Unit

0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours,  
healthcare professionals only)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### 2.1.1. Classification according to Regulation (EU) 1272/2008

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CLP-Classification : The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

Acute Tox. 4 (Oral) H302

Full text of H-statements: see section 16

### 2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC

Classification : This mixture is classified as hazardous according to 1999/45/EC.

Xn; R22

Full text of R-phrases: see section 16

## 2.2. Label elements

### 2.2.1. Labelling according to Regulation (EU) 1272/2008

Hazard pictograms :



GHS07

Signal word :

Warning

Contains :

Ethanediol

Hazard statements :

H302 - Harmful if swallowed.

Precautionary statements :

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P270 - Do no eat, drink or smoke when using this product.

P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.

P330 - Rinse mouth.

P501 - Dispose of contents/container to .

### 2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

## 2.3. Other hazards

Other hazards :

PBT/vPvB data :

This information is not available.


## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
ethanediol, ethylene glycol	(CAS No.) 107-21-1 (EC No) 203-473-3 (EC Index) 603-027-00-1	90 - 100	Xn; R22
2,2' -oxybisethanol, diethylene glycol	(CAS No.) 111-46-6 (EC No) 203-872-2 (EC Index) 603-140-00-6	0,1 - 1	Xn; R22
sodium nitrite	(CAS No.) 7632-00-0 (EC No) 231-555-9 (EC Index) 007-010-00-4	0,1 - 0,5	O; R8 T; R25 N; R50
disodium tetraborate, anhydrous, boric acid, disodium salt substance listed as REACH Candidate	(CAS No.) 1330-43-4 (EC No) 215-540-4 (EC Index) 005-011-00-4	0,1 - 0,5	Repr.Cat.2; R60 Repr.Cat.2; R61

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Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol, ethylene glycol	(CAS No.) 107-21-1 (EC No) 203-473-3 (EC Index) 603-027-00-1	90 - 100	Acute Tox. 4 (Oral), H302
2,2' -oxybisethanol, diethylene glycol	(CAS No.) 111-46-6 (EC No) 203-872-2 (EC Index) 603-140-00-6	0,1 - 1	Acute Tox. 4 (Oral), H302
sodium nitrite	(CAS No.) 7632-00-0 (EC No) 231-555-9 (EC Index) 007-010-00-4	0,1 - 0,5	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400
disodium tetraborate, anhydrous, boric acid, disodium salt substance listed as REACH Candidate	(CAS No.) 1330-43-4 (EC No) 215-540-4 (EC Index) 005-011-00-4	0,1 - 0,5	Repr. 1B, H360FD

Full text of R- and H-statements: see section 16


## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation	: Keep at rest Provide fresh air. In case of doubt or persistent symptoms, consult always a physician
Skin contact	: Wash with plenty of water/. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. In case of doubt or persistent symptoms, consult always a physician
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. In case of doubt or persistent symptoms, consult always a physician
In case of ingestion	: Call a physician immediately Rinse mouth thoroughly with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting Never give anything by mouth to an unconscious person or a person with cramps.
Additional advice	: First aider: Pay attention to self-protection! See also section 8 . Never give anything by mouth to an unconscious person or a person with cramps. Show this safety data sheet to the doctor in attendance. Treat symptomatically. In case of doubt or persistent symptoms, consult always a physician

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

Inhalation	: May cause respiratory irritation. Dizziness, The following symptoms may occur: Cough, Headache.
Skin contact	: mild skin irritation . Components of the product may be absorbed into the body through the skin.
Eye contact	: May cause eye irritation with susceptible persons. The following symptoms may occur: erythema (redness), Pain .
Ingestion	: Harmful if swallowed. Weakness, Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache). Kidney injury may occur. The absorption of this product into the body may lead to the formation of methaemoglobine that, in sufficient concentration, causes cyanosis. The following symptoms may occur: Vomiting, Unconsciousness, Nausea . Abdominal pain.

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

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media : Water spray, Alcohol resistant foam, Carbon dioxide, Dry extinguishing powder  
 Extinguishing media to avoid : Strong water jet .

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

Fire hazard : Combustible .  
 Specific hazards : Provide adequate ventilation  
 Evacuate personnel to a safe area  
 The pressure in sealed containers can increase under the influence of heat.  
 Vapours are heavier than air and may spread along floors.  
 Hazardous decomposition products COx,  
 Formaldehyde .  
 Do not allow run-off from fire-fighting to enter drains or water courses.  
 Dispose of waste in accordance with environmental legislation

**5.3. Advice for firefighters**

Advice for firefighters : Special protective equipment for firefighters. .  
 Wear a self-contained breathing apparatus and chemical protective clothing.  
 Use water spray or fog for cooling exposed containers

**SECTION 6: Accidental release measures**

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

For non-emergency personnel : Stay upwind/keep distance from source.  
 Provide adequate ventilation  
 Use personal protective equipment as required.  
 Concerning personal protective equipment to use, see section 8  
 Do not breathe vapour/aerosol  
 Avoid contact with skin, eyes and clothing  
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place.

**6.2. Environmental precautions**


Environmental precautions : Do not allow contact with soil, surface or ground water.

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

Methods for cleaning up : Provide adequate ventilation  
 Stop leak if safe to do so  
 Dilute with plenty of water  
 Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).  
 Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

**6.4. Reference to other sections**

Concerning personal protective equipment to use, see section 8 .  
 Disposal: see section 13.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Handling :
- Use only in well ventilated areas
  - Use personal protective equipment as required.
  - Concerning personal protective equipment to use, see section 8 .
  - Do not ingest.
  - Do not breathe vapour/aerosol
  - Avoid contact with skin, eyes and clothing
  - After use replace the closing cap immediately
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - Take any precaution to avoid mixing with incompatible materials.
- Advices on general occupational hygiene :
- Keep good industrial hygiene
  - Wash hands and face before breaks and immediately after handling of the product.
  - Keep away from food, drink and animal feedingstuffs
  - When using do not eat, drink or smoke.
  - Keep work clothes separately.
  - Take off contaminated clothing.

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

- Storage :
- Keep container tightly closed in a cool, well-ventilated place.
  - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  - Do not store near or with any of the incompatible materials listed in section 10.
  - Keep locked-up.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Exposure limit values :

ethanediol, ethylene glycol (107-21-1)		
EU	IOELV TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	40 ppm
Austria	MAK (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup>
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	20 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Bulgaria	OEL TWA (ppm)	20 ppm
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Bulgaria	OEL STEL (ppm)	40 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	40 ppm

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Cyprus	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Cyprus	OEL TWA (ppm)	20 ppm
Cyprus	OEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Cyprus	OEL STEL (ppm)	40 ppm
France	VLE (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (indicative limit-vapor)
France	VLE (ppm)	40 ppm (indicative limit-vapor)
France	VME (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (indicative limit-vapor)
France	VME (ppm)	20 ppm (indicative limit-vapor)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	10 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Gibraltar	OEL TWA (ppm)	20 ppm
Gibraltar	OEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Gibraltar	OEL STEL (ppm)	40 ppm
Greece	OEL TWA (mg/m <sup>3</sup> )	125 mg/m <sup>3</sup> (vapor)
Greece	OEL TWA (ppm)	50 ppm (vapor)
Greece	OEL STEL (mg/m <sup>3</sup> )	125 mg/m <sup>3</sup> (vapor)
Greece	OEL STEL (ppm)	50 ppm (vapor)
Italy - Portugal - USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (aerosol only)
Italy	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Italy	OEL TWA (ppm)	20 ppm
Italy	OEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Italy	OEL STEL (ppm)	40 ppm
Latvia	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Latvia	OEL TWA (ppm)	20 ppm
Spain	VLA-ED (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Spain	VLA-EC (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Spain	VLA-EC (ppm)	40 ppm
Switzerland	VLE (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	20 ppm
Switzerland	VME (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup>
Switzerland	VME (ppm)	10 ppm
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (fume) 10 mg/m <sup>3</sup> (droplets)
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (particulates) 52 mg/m <sup>3</sup> (vapour)
United Kingdom	WEL TWA (ppm)	20 ppm (vapour)
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (vapour) 30 mg/m <sup>3</sup> (calculated-particulate)
United Kingdom	WEL STEL (ppm)	40 ppm (vapour)
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	26 mg/m <sup>3</sup> 10 mg/m <sup>3</sup> (vapor)

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Denmark	Grænseværdie (langvarig) (ppm)	10 ppm
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	20 ppm
Finland	HTP-arvo (15 min)	100 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	40 ppm
Hungary	AK-érték	52 mg/m <sup>3</sup>
Hungary	CK-érték	104 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (particulate) 52 mg/m <sup>3</sup> (vapour)
Ireland	OEL (8 hours ref) (ppm)	20 ppm (vapour)
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (vapour)
Ireland	OEL (15 min ref) (ppm)	40 ppm (particulate)
Lithuania	IPRV (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup> (aerosol and vapor)
Lithuania	IPRV (ppm)	10 ppm (aerosol and vapor)
Lithuania	TPRV (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup> (aerosol and vapor)
Lithuania	TPRV (ppm)	20 ppm (aerosol and vapor)
Malta	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Malta	OEL TWA (ppm)	20 ppm
Malta	OEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Malta	OEL STEL (ppm)	40 ppm
Norway	Grænseverdier (AN) (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup> (equal to the standard for nuisance dust-dust) 52 mg/m <sup>3</sup> (Total sum of limit values for both vapor and dust)
Norway	Grænseverdier (AN) (ppm)	52 ppm (Total sum of limit values for both vapor and dust-total dust and vapor)
Norway	Grænseverdier (Korttidsverdi) (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (Norm is based on the sum calculation for the total gas and particulate form of the substance-dust)
Norway	Grænseverdier (Korttidsverdi) (ppm)	20 ppm (Norm is based on the sum calculation for the total gas and particulate form of the substance)
Poland	NDS (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	20 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	40 ppm
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup> (aerosol and vapor)
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm (aerosol and vapor)
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup> (aerosol and vapor)
Sweden	kortidsvärde (KTV) (ppm)	20 ppm (aerosol and vapor)

**2,2' -oxybisethanol, diethylene glycol (111-46-6)**

Austria	MAK (mg/m <sup>3</sup> )	44 mg/m <sup>3</sup>
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	176 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	40 ppm



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Bulgaria	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	101 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (ppm)	23 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	44 mg/m <sup>3</sup> (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	10 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Latvia	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Switzerland	VLE (mg/m <sup>3</sup> )	176 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	40 ppm
Switzerland	VME (mg/m <sup>3</sup> )	44 mg/m <sup>3</sup>
Switzerland	VME (ppm)	10 ppm
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	101 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	23 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	303 mg/m <sup>3</sup> (calculated)
United Kingdom	WEL STEL (ppm)	69 ppm (calculated)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	11 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	2,5 ppm
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	23 ppm
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	300 mg/m <sup>3</sup> (calculated)
Ireland	OEL (15 min ref) (ppm)	69 ppm (calculated)
Lithuania	IPRV (mg/m <sup>3</sup> )	45 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	90 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	20 ppm
Poland	NDS (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable aerosol fraction)
Romania	OEL TWA (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	115 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	800 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	184 ppm
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	44 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	90 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	45 mg/m <sup>3</sup> (the limit value applies to the combined concentration of vapour and aerosol)
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm (the limit value applies to the combined concentration of vapour and aerosol)
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	90 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	20 ppm

### sodium nitrite (7632-00-0)

Lithuania	NRV (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
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### disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)

Belgium	Limit value (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
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<b>disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)</b>		
Belgium	Short time value (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Greece	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> (inhalable fraction)
Italy - Portugal - USA ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup> (inhalable fraction)
Spain	VLA-ED (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Spain	VLA-EC (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Switzerland	VME (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (water free-inhalable dust)
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (calculated)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup> (calculated)
Norway	Grænseverdier (AN) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Norway	Grænseverdier (Korttidsverdi) (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>

Recommended monitoring procedures : Concentration measurement in air  
Personal air monitoring

## **8.2. Exposure controls**

Personal protection equipment : Choose body protection according to the amount and concentration of the dangerous substance at the work place.


Respiratory protection : Not required for normal conditions of use  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Full face mask (EN 136) (EN 136)  
Half-face mask (DIN EN 140) (EN 140)  
Filter type: A (EN 141)  
Self-contained breathing apparatus (EN 133) .

Hand protection : Protective gloves complying with EN 374., The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.

Eye protection : tightly fitting safety goggles / Safety glasses (EN166)

Engineering control measures : Provide adequate ventilation  
Use only in area provided with appropriate exhaust ventilation.  
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure  
Organisational measures to prevent /limit releases, dispersion and exposure  
See also section 7

Environmental exposure controls : Do not allow to enter into surface water or drains  
Comply with applicable Community environmental protection legislation.

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## SECTION 9: Physical and chemical properties

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

Appearance	: liquid
Colour	: clear, Blue
Odour	: characteristic
pH	: 9,4 - 10 @ 100%
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: 195 °C
Flash point	: 111 °C Open cup
Evaporation rate	: No data available
Upper/lower flammability or explosive limits	: LEL: 3,2 % UEL: 15,3 %
Vapour pressure	: 0,05 mm Hg @ 20°C
Vapour density	: 2,1
Relative density	: 1,11 - 1,14
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Viscosity	: No data available
Explosive properties	: Not applicable

### 9.2. Other information

VOC content	: No data available
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: Reference to other sections: 10.5
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### 10.2. Chemical stability

Stability	: The product is stable under storage at normal ambient temperatures.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
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### 10.4. Conditions to avoid

Conditions to avoid	: Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. See also section 7 : Handling and storage .
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### 10.5. Incompatible materials

Incompatible materials	: Oxidising substances,, acids and bases ., See also section 7 :, Handling and storage .
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	: Burning produces noxious and toxic fumes. Hazardous decomposition products Carbon oxides, Formaldehyde .
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed.
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<b>ethanediol, ethylene glycol (107-21-1)</b>	
LD50/oral/rat	4700 mg/kg
LD50/dermal/rat	10600 mg/kg
ATE CLP (oral)	500 mg/kg bodyweight

<b>2,2' -oxybisethanol, diethylene glycol (111-46-6)</b>	
LD50/oral/rat	12565 mg/kg
LD50/dermal/rabbit	11890 mg/kg
ATE CLP (oral)	500 mg/kg bodyweight
ATE CLP (dermal)	11890 mg/kg bodyweight

<b>sodium nitrite (7632-00-0)</b>	
LD50/oral/rat	85 mg/kg
LC50/inhalation/4h/rat	5,5 mg/l/4h
ATE CLP (oral)	85 mg/kg bodyweight
ATE CLP (vapours)	5,5 mg/l/4h
ATE CLP (dust,mist)	5,5 mg/l/4h

<b>disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)</b>	
LD50/oral/rat	2660 mg/kg
LD50/dermal/rabbit	> 2000 mg/kg


Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: 9,4 - 10 @ 100%
Serious eye damage/eye irritation	: Not classified (Based on available data, the classification criteria are not met.) pH: 9,4 - 10 @ 100%
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met.)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met.)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met.)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met.)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met.)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met.)

## SECTION 12: Ecological information

### 12.1. Toxicity

Toxicity : No data is available on the product itself.

<b>ethanediol, ethylene glycol (107-21-1)</b>	
LC50 fish 1	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 96h algae (1)	6500 - 13000 mg/l (Species: Pseudokirchneriella subcapitata)

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<b>2,2' -oxybisethanol, diethylene glycol (111-46-6)</b>	
LC50 fish 1	75200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	84000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

<b>sodium nitrite (7632-00-0)</b>	
LC50 fish 1	0,19 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	87 mg/l
LC50 fish 2	0,092 - 0,13 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

<b>disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)</b>	
LC50 fish 1	340 mg/l (Exposure time: 96 h - Species: Limanda limanda)
EC50 Daphnia 1	1085 - 1402 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 96h algae (1)	158 mg/l (Species: Desmodesmus subspicatus)

#### **12.2. Persistence and degradability**

Persistence and degradability : The product itself has not been tested.

#### **12.3. Bioaccumulative potential**

Bioaccumulation : The product itself has not been tested.  
Partition coefficient n-octanol/water : No data available

#### **12.4. Mobility in soil**

Mobility : The product itself has not been tested.

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

PBT/vPvB data : This information is not available.

#### **12.6. Other adverse effects**

Other information : No information available

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

#### **13.1. Waste treatment methods**


Product waste: : Refer to manufacturer/supplier for information on recovery/recycling  
Collect and dispose of waste product at an authorised disposal facility.  
Dispose of contaminated materials in accordance with current regulations

Contaminated packaging : Delivery to an approved waste disposal company.  
In accordance with local and national regulations.

List of proposed waste codes/waste designations in accordance with EWC : The following Waste Codes are only suggestions:  
07 02 04\* - other organic solvents, washing liquids and mother liquors /  
150110 - packaging containing residues of or contaminated by dangerous substances .  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

### **SECTION 14: Transport information**

Not classified as dangerous in the meaning of transport regulations.

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**14.1. UN number**

**14.2. UN proper shipping name**

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

**14.3.1. Overland transport**

ADR/RID : Not classified for this transport way.

**14.3.2. Inland waterway transport (ADN) No data available**

**14.3.3. Transport by sea**

IMDG : Not classified for this transport way.

Class or Division :

**14.3.4. Air transport**

ICAO/IATA : Not classified for this transport way.

Class or Division :

**14.4. Packing group No data available**

**14.5. Environmental hazards**

Other information : No supplementary information available.

**14.6. Special precautions for user No data available**

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

No data available

**SECTION 15: Regulatory information**

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

**15.1.1. EU-Regulations**

Restrictions on use : Not applicable

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.

: disodium tetraborate, anhydrous

VOC content : No data available

**15.1.2. National regulations**

DE : WGK : 1  
 NL : ABM : 11 - Weinig schadelijk voor in het water levende organismen (B)  
 NL : NeR (Nederlandse emissie Richtlijn) : Organic Substances


**15.2. Chemical safety assessment**

Chemical Safety Assessment : Not required

**SECTION 16: Other information**

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Oral) : Acute toxicity Category 3  
 Acute Tox. 4 (Oral) : Acute toxicity Category 4  
 Aquatic Acute 1 : Hazardous to the aquatic environment - Aquatic Acute 1  
 Ox. Sol. 3 : Oxidizing solid Category 3  
 Repr. 1B : Reproductive toxicity, Category 1B  
 H272 : May intensify fire; oxidiser.

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H301	: Toxic if swallowed.
H302	: Harmful if swallowed.
H360FD	: May damage fertility. May damage the unborn child.
H400	: Very toxic to aquatic life.
R22	: Harmful if swallowed.
R25	: Toxic if swallowed.
R50	: Very toxic to aquatic organisms.
R60	: May impair fertility.
R61	: May cause harm to the unborn child.
R8	: Contact with combustible material may cause fire
N	: Dangerous for the environment
O	: Oxidizing
T	: Toxic
Xn	: Harmful

Key literature references and sources for data : European Chemicals Bureau  
SDS Supplier No LT16588 EU reviewed 04/06/2009

Abbreviations and acronyms : ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin  
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods Code  
LEL = Lower Explosive Limit/Lower Explosion Limit  
UEL = Upper Explosive Limit/Upper Explosive Limit  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
CSR = CSR = Chemical Safety Report  
EC50 = Median Effective Concentration  
LD50 = Median lethal dose  
LC50 = Median lethal concentration  
N.O.S. = Not Otherwise Specified  
DNEL = DNEL = Derived No Effect Level  
PNEC = Predicted No Effect Concentration  
TLV = Threshold limits  
TWA = time weighted average  
STEL = Short term exposure limit  
persistent, bioaccumulating and toxic (PBT).  
vPvB = very persistent and very bioaccumulating  
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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