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

1.1. Product identifier

Product form : Mixture
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)
Product group : Trade product
Document no. : LT16588 EU

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Coolant /
Anti-freezing agent

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Cummins Filtration
Unit 3 / Valley Drive / Valley Park / Rugby
CV21 1 TN Warwickshire - The United Kingdom
T +44 (0)1788 853600

Cummins Filtration
Zone Industrielle du Grand Guelen
29556 Quimper Cedex 9 - France

T
+33 (0) 2 98 76 49 49

OOO Cummins
Klyazma 1G, Khimki, Moscow Region
141402 - Russia


T +7 495 926 86 24/25
dbu.russia@cummins.com

Cummins Filtration
Catenbergstraat 1
2840 Rumst - Belgium
T +32 3 456 3000
productinfosds@cummins.com

1.4. Emergency telephone number

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

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302

STOT RE 2 H373

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

GHS08

Signal word :

Warning

Hazardous ingredients :

ethanediol, ethylene glycol; 2,2' -OXYBISETHANOL, DIETHYLENE GLYCOL; sodium nitrite

Hazard statements (CLP) :

H302 - Harmful if swallowed.
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Precautionary statements (CLP) :

P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P314 - Get medical advice/attention if you feel unwell.
P330 - Rinse mouth.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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 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 STOT RE 2, H373
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 STOT RE 2, H373
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 Eye Irrit. 2, H319 Aquatic Acute 1, H400

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disodium tetraborate, anhydrous, boric acid, disodium salt substance listed as REACH Candidate (Disodium tetraborate, anhydrous)	(CAS-No.) 1330-43-4 (EC-No.) 215-540-4 (EC Index) 005-011-00-4	0,1 - 0,5	Eye Irrit. 2, H319 Repr. 1B, H360FD
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Specific concentration limits:

Substance name	Product identifier	Specific concentration limits
disodium tetraborate, anhydrous, boric acid, disodium salt	(CAS-No.) 1330-43-4 (EC-No.) 215-540-4 (EC Index) 005-011-00-4	(C >= 4,5) Repr. 1B, H360FD

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection. See also section 8 . Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. Treat symptomatically. In case of doubt or persistent symptoms, consult always a physician.
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.
Eyes 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.
Ingestion	: Call a physician immediately. Rinse mouth out with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

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.
Eyes 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.
Chronic symptoms	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

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.
Unsuitable extinguishing media	: Strong water jet .

5.2. Special hazards arising from the substance or mixture

Specific hazards	: Provide adequate ventilation. Evacuate personnel to a safe area. On heating there is a risk of a build-up of pressure in hermetically sealed containers or tanks. 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.
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5.3. Advice for firefighters

Firefighting instructions : 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

6.1.1. For non-emergency personnel

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 eat, drink or smoke in areas where product is used. 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. Do not ingest.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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 . Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe 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 combustibles/...

Hygiene measures : 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. Separate working clothes from town clothes. Take off contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : 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. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity. Keep locked-up.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanediol, ethylene glycol (107-21-1)		
EU	IOELV TWA (mg/m ³)	52 mg/m ³

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ethanediol, ethylene glycol (107-21-1)

EU	IOELV TWA (ppm)	20 ppm
EU	IOELV STEL (mg/m ³)	104 mg/m ³
EU	IOELV STEL (ppm)	40 ppm
Austria	MAK (mg/m ³)	26 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	52 mg/m ³
Austria	MAK Short time value (ppm)	20 ppm
Bulgaria	OEL TWA (mg/m ³)	52 mg/m ³
Bulgaria	OEL TWA (ppm)	20 ppm
Bulgaria	OEL STEL (mg/m ³)	104 mg/m ³
Bulgaria	OEL STEL (ppm)	40 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	52 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	20 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	104 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	40 ppm
Cyprus	OEL TWA (mg/m ³)	52 mg/m ³
Cyprus	OEL TWA (ppm)	20 ppm
Cyprus	OEL STEL (mg/m ³)	104 mg/m ³
Cyprus	OEL STEL (ppm)	40 ppm
Czech Republic	Expoziční limity (PEL) (mg/m ³)	50 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	26 mg/m ³ 10 mg/m ³ (atomized)
Denmark	Grænseværdie (langvarig) (ppm)	10 ppm
Estonia	OEL TWA (mg/m ³)	52 mg/m ³ (total concentration of aerosol and vapor)
Estonia	OEL TWA (ppm)	20 ppm (total concentration of aerosol and vapor)
Estonia	OEL STEL (mg/m ³)	104 mg/m ³ (total concentration of aerosol and vapor)
Estonia	OEL STEL (ppm)	40 ppm (total concentration of aerosol and vapor)
Finland	HTP-arvo (8h) (mg/m ³)	50 mg/m ³
Finland	HTP-arvo (8h) (ppm)	20 ppm
Finland	HTP-arvo (15 min)	100 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	40 ppm
France	VME (mg/m ³)	52 mg/m ³ (indicative limit-vapor)
France	VME (ppm)	20 ppm (indicative limit-vapor)
France	VLE (mg/m ³)	104 mg/m ³ (indicative limit-vapor)
France	VLE (ppm)	40 ppm (indicative limit-vapor)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	26 mg/m ³ (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	8h mg/m ³	52 mg/m ³
Gibraltar	8h ppm	20 ppm

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Gibraltar	Short-term mg/m ³	104 mg/m ³
Gibraltar	Short-term ppm	40 ppm
Greece	OEL TWA (mg/m ³)	125 mg/m ³ (vapor)
Greece	OEL TWA (ppm)	50 ppm (vapor)
Greece	OEL STEL (mg/m ³)	125 mg/m ³ (vapor)
Greece	OEL STEL (ppm)	50 ppm (vapor)
Hungary	AK-érték	52 mg/m ³
Hungary	CK-érték	104 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ (particulate) 52 mg/m ³ (vapour)
Ireland	OEL (8 hours ref) (ppm)	20 ppm (vapour)
Ireland	OEL (15 min ref) (mg/m ³)	104 mg/m ³ (vapour)
Ireland	OEL (15 min ref) (ppm)	40 ppm (particulate)
Italy	OEL TWA (mg/m ³)	52 mg/m ³
Italy	OEL TWA (ppm)	20 ppm
Italy	OEL STEL (mg/m ³)	104 mg/m ³
Italy	OEL STEL (ppm)	40 ppm
Latvia	OEL TWA (mg/m ³)	52 mg/m ³
Latvia	OEL TWA (ppm)	20 ppm
Lithuania	IPRV (mg/m ³)	25 mg/m ³ (aerosol and vapor)
Lithuania	IPRV (ppm)	10 ppm (aerosol and vapor)
Lithuania	TPRV (mg/m ³)	50 mg/m ³ (aerosol and vapor)
Lithuania	TPRV (ppm)	20 ppm (aerosol and vapor)
Luxembourg	OEL TWA (mg/m ³)	52 mg/m ³
Luxembourg	OEL TWA (ppm)	20 ppm
Luxembourg	OEL STEL (mg/m ³)	104 mg/m ³
Luxembourg	OEL STEL (ppm)	40 ppm
Malta	OEL TWA (mg/m ³)	52 mg/m ³
Malta	OEL TWA (ppm)	20 ppm
Malta	OEL STEL (mg/m ³)	104 mg/m ³
Malta	OEL STEL (ppm)	40 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	52 mg/m ³ (fume) 10 mg/m ³ (droplets)
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	104 mg/m ³
Poland	NDS (mg/m ³)	15 mg/m ³
Poland	NDSch (mg/m ³)	50 mg/m ³
Portugal	OEL TWA (mg/m ³)	52 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	20 ppm (indicative limit value)
Portugal	OEL STEL (mg/m ³)	104 mg/m ³ (indicative limit value)
Portugal	OEL STEL (ppm)	40 ppm (indicative limit value)
Portugal	OEL - Ceilings (mg/m ³)	100 mg/m ³ (aerosol only)
Romania	OEL TWA (mg/m ³)	52 mg/m ³
Romania	OEL TWA (ppm)	20 ppm
Romania	OEL STEL (mg/m ³)	104 mg/m ³

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Romania	OEL STEL (ppm)	40 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	52 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	104 mg/m ³
Slovenia	OEL TWA (mg/m ³)	52 mg/m ³
Slovenia	OEL TWA (ppm)	20 ppm
Slovenia	OEL STEL (mg/m ³)	104 mg/m ³
Slovenia	OEL STEL (ppm)	40 ppm
Spain	VLA-ED (mg/m ³)	52 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Spain	VLA-EC (mg/m ³)	104 mg/m ³
Spain	VLA-EC (ppm)	40 ppm
Sweden	nivågränsvärde (NVG) (mg/m ³)	25 mg/m ³ (the limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm (the limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	kortidsvärde (KTV) (mg/m ³)	104 mg/m ³ (aerosol and vapor)
Sweden	kortidsvärde (KTV) (ppm)	40 ppm (aerosol and vapor)
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (particulates) 52 mg/m ³ (vapour)
United Kingdom	WEL TWA (ppm)	20 ppm (vapour)
United Kingdom	WEL STEL (mg/m ³)	104 mg/m ³ (vapour) 30 mg/m ³ (calculated-particulate)
United Kingdom	WEL STEL (ppm)	40 ppm (vapour)
Norway	Grenseverdier (AN) (mg/m ³)	20 mg/m ³ (equal to the standard for nuisance dust-dust) 52 mg/m ³ (total sum of limit values for both vapor and dust)
Norway	Grenseverdier (AN) (ppm)	52 ppm (total sum of limit values for both vapor and dust-total dust and vapor)
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	104 mg/m ³ (value from the regulation-dust)
Norway	Grenseverdier (Korttidsverdi) (ppm)	40 ppm (value from the regulation)
Switzerland	MAK (mg/m ³)	26 mg/m ³
Switzerland	MAK (ppm)	10 ppm
Switzerland	KZGW (mg/m ³)	52 mg/m ³
Switzerland	KZGW (ppm)	20 ppm
Australia	TWA (mg/m ³)	10 mg/m ³ (particulate) 52 mg/m ³ (vapour)
Australia	TWA (ppm)	20 ppm (vapour)
Australia	STEL (mg/m ³)	104 mg/m ³ (vapour)
Australia	STEL (ppm)	40 ppm (vapour)
Canada (Quebec)	PLAFOND (mg/m ³)	127 mg/m ³ (mist and vapour)
Canada (Quebec)	PLAFOND (ppm)	50 ppm (mist and vapour)
USA - ACGIH	ACGIH TWA (ppm)	25 ppm (vapor fraction)
USA - ACGIH	ACGIH STEL (mg/m ³)	10 mg/m ³ (inhalable particulate matter, aerosol only)

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USA - ACGIH	ACGIH STEL (ppm)	50 ppm (vapor fraction)
2,2' -OXYBISETHANOL, DIETHYLENE GLYCOL (111-46-6)		
Austria	MAK (mg/m ³)	44 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	176 mg/m ³
Austria	MAK Short time value (ppm)	40 ppm
Bulgaria	OEL TWA (mg/m ³)	10 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	101 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	23 ppm
Denmark	Grænseværdie (langvarig) (mg/m ³)	11 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	2,5 ppm
Estonia	OEL TWA (mg/m ³)	45 mg/m ³
Estonia	OEL TWA (ppm)	10 ppm
Estonia	OEL STEL (mg/m ³)	90 mg/m ³
Estonia	OEL STEL (ppm)	20 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	44 mg/m ³ (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)
Ireland	OEL (8 hours ref) (mg/m ³)	100 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	23 ppm
Ireland	OEL (15 min ref) (mg/m ³)	300 mg/m ³ (calculated)
Ireland	OEL (15 min ref) (ppm)	69 ppm (calculated)
Latvia	OEL TWA (mg/m ³)	10 mg/m ³
Lithuania	IPRV (mg/m ³)	45 mg/m ³
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m ³)	90 mg/m ³
Lithuania	TPRV (ppm)	20 ppm
Poland	NDS (mg/m ³)	10 mg/m ³ (inhalable fraction)
Romania	OEL TWA (mg/m ³)	500 mg/m ³
Romania	OEL TWA (ppm)	115 ppm
Romania	OEL STEL (mg/m ³)	800 mg/m ³
Romania	OEL STEL (ppm)	184 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	44 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	90 mg/m ³
Slovenia	OEL TWA (mg/m ³)	44 mg/m ³
Slovenia	OEL TWA (ppm)	10 ppm
Slovenia	OEL STEL (mg/m ³)	176 mg/m ³
Slovenia	OEL STEL (ppm)	40 ppm
Sweden	nivågränsvärde (NVG) (mg/m ³)	45 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm



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2,2' -OXYBISETHANOL, DIETHYLENE GLYCOL (111-46-6)

Sweden	kortidsvärde (KTV) (mg/m ³)	90 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	20 ppm
United Kingdom	WEL TWA (mg/m ³)	101 mg/m ³
United Kingdom	WEL TWA (ppm)	23 ppm
United Kingdom	WEL STEL (mg/m ³)	303 mg/m ³ (calculated)
United Kingdom	WEL STEL (ppm)	69 ppm (calculated)
Switzerland	MAK (mg/m ³)	44 mg/m ³
Switzerland	MAK (ppm)	10 ppm
Switzerland	KZGW (mg/m ³)	176 mg/m ³
Switzerland	KZGW (ppm)	40 ppm
Australia	TWA (mg/m ³)	100 mg/m ³
Australia	TWA (ppm)	23 ppm

sodium nitrite (7632-00-0)


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

Belgium	Limit value (mg/m ³)	2 mg/m ³
Belgium	Short time value (mg/m ³)	6 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	1 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	1 mg/m ³
France	VME (mg/m ³)	1 mg/m ³
Greece	OEL TWA (mg/m ³)	10 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³
Ireland	OEL (15 min ref) (mg/m ³)	3 mg/m ³ (calculated)
Portugal	OEL TWA (mg/m ³)	2 mg/m ³ (inhalable fraction)
Portugal	OEL STEL (mg/m ³)	6 mg/m ³ (inhalable fraction)
Spain	VLA-ED (mg/m ³)	2 mg/m ³
Spain	VLA-EC (mg/m ³)	6 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	3 mg/m ³ (calculated)
Norway	Grenseverdier (AN) (mg/m ³)	1 mg/m ³
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	2 mg/m ³ (value calculated)
Australia	TWA (mg/m ³)	1 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	1 mg/m ³
USA - ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (inhalable particulate matter)
USA - ACGIH	ACGIH STEL (mg/m ³)	6 mg/m ³ (inhalable particulate matter)
USA - NIOSH	NIOSH REL (TWA) (mg/m ³)	1 mg/m ³

8.2. Exposure controls

- Engineering measure(s) : 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.
- Personal protective equipment : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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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)
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) .

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Colour	: Blue.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: 9,4 - 10 @ 100%
Relative evaporation rate (butylacetate=1)	: No data available
Melting / freezing point	: No data available
Freezing point	: No data available
Initial boiling point and boiling range	: 195 °C
Flash point	: 111 °C Open cup
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable,(Liquid)
Vapour pressure	: 0,05 mm Hg @ 20°C
Vapour density	: 2,1
Relative density	: 1,11 - 1,14
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.
Explosive limits	: LEL: 3,2 %

9.2. Other information

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

10.1. Reactivity


Reference to other sections: 10.5.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

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10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. See also section 7 : Handling and storage .

10.5. Incompatible materials

oxidising substances. acids and bases . See also section 7 : Handling and storage .

10.6. Hazardous decomposition products

Burning produces noxious and toxic fumes. Hazardous decomposition products. Carbon oxides. Formaldehyde .

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	490,4789382574 mg/kg bodyweight
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ethanediol, ethylene glycol (107-21-1)

LD50/oral/rat	4700 mg/kg
LD50/dermal/rat	10600 mg/kg

2,2' -OXYBISETHANOL, DIETHYLENE GLYCOL (111-46-6)

LD50/oral/rat	12565 mg/kg
LD50/dermal/rabbit	11890 mg/kg

sodium nitrite (7632-00-0)

LD50/oral/rat	85 mg/kg
LC50/inhalation/4h/rat	5,5 mg/l/4h

disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)

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/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 : May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : Not classified.

ethanediol, ethylene glycol (107-21-1)

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])

2,2' -OXYBISETHANOL, DIETHYLENE GLYCOL (111-46-6)

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)

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**ES COMPLEAT EG
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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])

disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)

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)

12.2. Persistence and degradability**ES COMPLEAT EG CONCENTRATE**

Persistence and degradability	No data is available on the product itself.
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12.3. Bioaccumulative potential**ES COMPLEAT EG CONCENTRATE**

Partition coefficient n-octanol/water	No data available
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ethanediol, ethylene glycol (107-21-1)

Partition coefficient n-octanol/water	-1,93
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2,2' -OXYBISETHANOL, DIETHYLENE GLYCOL (111-46-6)

BCF fish 1	100 - 180
Partition coefficient n-octanol/water	-1,98 (at 25 °C)

sodium nitrite (7632-00-0)

Partition coefficient n-octanol/water	-3,7 (at 25 °C)
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disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)

BCF fish 1	(no evidence of bioaccumulation)
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12.4. Mobility in soil**ES COMPLEAT EG CONCENTRATE**

Ecology - soil	The product itself has not been tested.
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12.5. Results of PBT and vPvB assessment

ingredient	
disodium tetraborate, anhydrous, boric acid, disodium salt (1330-43-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects


Additional information : No information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product/Packaging disposal recommendations : 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.

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

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : 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.

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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

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

Not applicable


SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	ethanediol, ethylene glycol - 2,2' - OXYBISETHANOL, DIETHYLENE GLYCOL
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	ES COMPLEAT EG CONCENTRATE - ethanediol, ethylene glycol - 2,2' - OXYBISETHANOL, DIETHYLENE GLYCOL

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30. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Toxic to Reproduction category 1A or 1B (Table 3.1) or Toxic to Reproduction category 1 or 2 (Table 3.2) and listed as follows: Reproductive toxicant category 1A adverse effects on sexual function and fertility or on development (Table 3.1) or Reproductive toxicant category 1 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 5 Reproductive toxicant category 1B adverse effects on sexual function and fertility or on development (Table 3.1) or Reproductive toxicant category 2 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 6

disodium tetraborate, anhydrous, boric acid, disodium salt

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Disodium tetraborate, anhydrous (EC 215-540-4, CAS 1330-43-4)

Contains no REACH Annex XIV substances

VOC content : No data available

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

TA Luft : 5.2.5 Organic Substances

Netherlands

Waterbezwaarlijkheid : 11 - Weinig schadelijk voor in het water levende organismen (B)

Saneringsinspanningen : B - Lozing minimaliseren; toepassen van best uitvoerbare technieken

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : disodium tetraborate, anhydrous, boric acid, disodium salt is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : disodium tetraborate, anhydrous, boric acid, disodium salt is listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

Not required

SECTION 16: Other information

Indication of changes:

SECTION : 1, 2, 3, 4, 6, 8, 11, 14, 15, 16.

Abbreviations and acronyms:

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	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 Explosion 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)

Sources of key data used to compile the datasheet : ECHA (European Chemicals Agency). European Chemicals Bureau SDS Supplier No LT16588 EU reviewed 04/06/2009.

Training advice : Manipulations are to be done only by qualified and authorised persons. Training staff on good practice.

Full text of H- and EUH-statements:

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
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Ox. Sol. 3	Oxidizing solid Category 3
Repr. 1B	Reproductive toxicity, Category 1B
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed
H319	Causes serious eye irritation
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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