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

### 1.1. Product identifier

Trade name/designation : Long Life Engine Coolant Concentrate-C2053

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

Specific use(s) : Coolant

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

Company: : Solventis BVBA  
Sint Maartenstraat 1  
2000 Antwerpen , België  
Telephone: +32 3 205 16 66  
Fax: +32 3 233 93 83

Company: : Solventis Ltd  
Bank Terrace, Gomshall Lane, Shere, Guildford  
GU5 9HB Surrey , UK  
Telephone: +44 1483 203224  
Fax: +44 1483 205040  
E-mail: sds@solventis.net

### 1.4. Emergency telephone number

Emergency telephone : +32 (0)3 575 55 55 (24h/24h)

IRELAND (REPUBLIC OF)  
National Poisons Information Centre  
Beaumont Hospital : +35 318 37 99 64  
UNITED KINGDOM  
National Poisons Information Service  
(Newcastle Centre) : 0870 600 6266 (UK only)  
Regional Drugs and Therapeutics Centre,  
Wolfson Unit

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

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

Acute Tox. 4 (Oral) H302  
Skin Irrit. 2 H315  
Eye Irrit. 2 H319  
Repr. 2 H361d

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Full text of H-phrases: see section 16

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

Classification : The mixture is classified as dangerous in accordance with Directive 1999/45/EC.  
 Xn; R22  
 Xi; R36/38

Full text of R-phrases: see section 16

## 2.2. Label elements

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

CLP pictograms :



Signal word : Warning  
 Contains : Ethylene glycol  
 Diethylene glycol  
 2-ethylhexanoic acid  
 Hazard statements : H302 - Harmful if swallowed.  
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H361d - Suspected of damaging the unborn child.  
 Precautionary statements : P201 - Obtain special instructions before use.  
 P308+P313 - IF exposed or concerned: Get medical advice/attention.  
 P264 - Wash skin thoroughly after handling.  
 P280 - Wear protective gloves and eye protection/face protection.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing.  
 P501 - Dispose of contents/ container to an approved waste disposal plant.

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

Not relevant

## 2.3. Other hazards

Other hazards which do not result in classification : Results of PBT and vPvB assessment :  
 No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

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Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Ethylene glycol	(CAS No.) 107-21-1 (EC No) 203-473-3 (EC Index) 603-027-00-1	75 - 95	Xn; R22
Diethylene glycol	(CAS No.) 111-46-6 (EC No) 203-872-2 (EC Index) 603-140-00-6	0 - 15	Xn; R22
2-ethylhexanoic acid	(CAS No.) 149-57-5 (EC No) 205-743-6 (EC Index) 607-230-00-6	< 5	Repr.Cat.3; R63
Potassium hydroxide	(CAS No.) 1310-58-3 (EC No) 215-181-3 (EC Index) 019-002-00-8	< 2	Xn; R22 C; R35
Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethylene glycol	(CAS No.) 107-21-1 (EC No) 203-473-3 (EC Index) 603-027-00-1	75 - 95	Acute Tox. 4 (Oral), H302
Diethylene glycol	(CAS No.) 111-46-6 (EC No) 203-872-2 (EC Index) 603-140-00-6	0 - 15	Acute Tox. 4 (Oral), H302
2-ethylhexanoic acid	(CAS No.) 149-57-5 (EC No) 205-743-6 (EC Index) 607-230-00-6	< 5	Repr. 2, H361d
Potassium hydroxide	(CAS No.) 1310-58-3 (EC No) 215-181-3 (EC Index) 019-002-00-8	< 2	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

Full text of R-, H- and EUH-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

Inhalation	: Keep at rest. Provide fresh air. Consult a physician if necessary.
Skin contact	: Wash with plenty of soap and water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Consult a physician if necessary.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician if irritation develops or persists.
Ingestion	: Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Call a physician immediately.
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.

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

Inhalation	: May cause irritation of respiratory tract. The following symptoms may occur: Cough Dizziness Headache.
Skin contact	: Causes skin irritation. May be absorbed through the skin. Repeated exposure may cause skin dryness or cracking.
Eye contact	: Causes serious eye irritation. The following symptoms may occur: Redness Pain.
Ingestion	: Harmful if swallowed. The following symptoms may occur: Abdominal pain Feeling of weakness Vomiting Unconsciousness nausea.
Other adverse effects	: Suspected of damaging the unborn child.

#### **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	: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media which shall not be used for safety reasons	: Strong water jet

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

Fire hazard	: Combustible material
Specific hazards	: Provide adequate ventilation. Evacuate area. Hazardous decomposition products: COx Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### **5.3. Advice for firefighters**

Advice for firefighters	: Special protective equipment for firefighters. . In case of fire: Wear self-contained breathing apparatus. Evacuate area. In the event of fire, cool tanks with water spray.
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### **SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel	: Provide adequate ventilation. Use personal protective equipment as required. See also section 8. Do not breathe vapour/spray. Avoid contact with skin, eyes and clothes. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Advice for emergency responders	: Only qualified personnel equipped with suitable protective equipment may intervene. See also section 8.

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## **6.2. Environmental precautions**

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 : Prevent further leakage or spillage if safe to do so.  
 Dam up.  
 Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
 Sweep up and shovel into suitable containers for disposal.  
 Large spills should be collected mechanically (remove by pumping) for disposal.  
 Local authorities should be advised if significant spillages cannot be contained.  
 Dispose according to legislation.

## **6.4. Reference to other sections**

See also section 8  
 See also section 13.

# **SECTION 7: Handling and storage**

## **7.1. Precautions for safe handling**

Handling : Provide adequate ventilation.  
 Use personal protective equipment as required.  
 See also section 8  
 Do not breathe vapour/spray.  
 Avoid contact with skin, eyes and clothes.  
 Take any precaution to avoid mixing with incompatible materials.  
 See also section 10  
 Take care to avoid waste and spillage when weighing, loading and mixing the product.  
 After use replace the closing cap immediately.  
 Do not allow to enter into surface water or drains.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
 Wash hands and face before breaks and immediately after handling of the product.  
 When using do not eat, drink or smoke.  
 Keep working clothes separately.  
 Take off contaminated clothing and wash before reuse.  
 Keep away from food, drink and animal feedingstuffs.

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

Storage : Keep container tightly closed in a cool, well-ventilated place.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.  
 Do not store near or with any of the incompatible materials listed in section 10.

Packaging material : Keep/Store only in original container.

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

No data available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Exposure limit(s) :

Potassium hydroxide (1310-58-3)		
Austria	MAK (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	2,0 mg/m <sup>3</sup>
France	VLE (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Greece	OEL TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Greece	OEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Italy - Portugal - USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Spain	VLA-EC (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Switzerland	VME (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min)	2 mg/m <sup>3</sup>
Hungary	AK-érték	2 mg/m <sup>3</sup>
Hungary	CK-érték	2 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (Takverdi) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Poland	NDS (mg/m <sup>3</sup> )	0,5 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Sweden	takgränsvärde (TGV) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

#### 2-ethylhexanoic acid (149-57-5)

Belgium	Limit value (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>

#### 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> )	52 mg/m <sup>3</sup>
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (ppm)	20 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	52,0 mg/m <sup>3</sup>

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Ethylene glycol (107-21-1)		
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	104,0 mg/m <sup>3</sup>
Bulgaria	OEL STEL (ppm)	40 ppm
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)
France	VLE (ppm)	40 ppm (indicative limit)
France	VME (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (indicative limit)
France	VME (ppm)	20 ppm (indicative limit)
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>
Greece	OEL TWA (ppm)	50 ppm
Greece	OEL STEL (mg/m <sup>3</sup> )	125 mg/m <sup>3</sup>
Greece	OEL STEL (ppm)	50 ppm
Italy - Portugal - USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
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
The Netherlands	MAC TGG 8H (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
The Netherlands	MAC TGG 15MIN (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>

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Ethylene glycol (107-21-1)		
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	20 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	30 mg/m <sup>3</sup> (calculated)
United Kingdom	WEL STEL (ppm)	40 ppm
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
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> )	52 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (ppm)	40 ppm
Lithuania	IPRV (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	20 ppm
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	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	52 mg/m <sup>3</sup> (Total sum of limit values for both vapor and dust)
Norway	Gjennomsnittsverdier (AN) (ppm)	20 ppm (Total sum of limit values for both vapor and dust)
Norway	Gjennomsnittsverdier (Kortidsverdi) (mg/m <sup>3</sup> )	104 mg/m <sup>3</sup> (Norm is based on the sum calculation for the total gas and particulate form of the substance)
Norway	Gjennomsnittsverdier (Kortidsverdi) (ppm)	40 ppm (Norm is based on the sum calculation for the total gas and particulate form of the substance)
Norway	Gjennomsnittsverdier (Takverdi) (ppm)	25 ppm
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



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### Ethylene glycol (107-21-1)

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>
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	20 ppm

### Diethylene glycol (111-46-6)

Austria	MAK (mg/m <sup>3</sup> )	176 mg/m <sup>3</sup>
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (ppm)	40 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	10,0 mg/m <sup>3</sup>
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
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>
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

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Diethylene glycol (111-46-6)		
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>
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	90 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	20 ppm

Recommended monitoring procedures: : Concentration measurement in air  
Personal monitoring

### 8.2. Exposure controls

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : Not required under normal use.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Respirator with a full face mask (EN 136)  
Respirator with a half face mask (EN 140)  
Recommended Filter type: ABEK (EN 141)

Hand protection : Wear chemically resistant gloves (tested to EN374) 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. Neoprene gloves Nitrile rubber

Eye protection : Safety glasses (EN166)

Skin and body protection : Wear suitable protective clothing.  
Chemical-resistant overalls  
Chemical resistant safety shoes

Thermal hazard protection : Not required under normal use.

Engineering control measures : Provide adequate ventilation.  
Use only in area provided with appropriate exhaust ventilation.  
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.

## SECTION 9: Physical and chemical properties

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

Appearance : liquid

Colour : Variable

Odour : odourless

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Odour Threshold	: No data available
pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: > 170 °C
Flash point	: > 111 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable, liquid
Explosion limits (LEL, UEL)	: No data available
Vapour pressure	: No data available
Vapour density	: no data available
Relative density	: > 1,1 (20°C)
Water solubility	: Soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: Not applicable The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidizing properties	: Not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

### **9.2. Other information**

No data available

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

Reactivity : hygroscopic  
See also section 10.5

### **10.2. Chemical stability**

Stability : The product is stable under storage at normal ambient temperatures.

### **10.3. Possibility of hazardous reactions**

Hazardous reactions : Reacts vigorously with strong oxidizers and acids.  
See also section 7  
Handling and storage

### **10.4. Conditions to avoid**

Conditions to avoid : Heat, flames and sparks.  
See also section 7  
Handling and storage

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### 10.5. Incompatible materials

Incompatible materials : Strong acids and oxidizing agents See also section 7 Handling and storage

### 10.6. Hazardous decomposition products

Hazardous decomposition products : Burning produces noxious and toxic fumes. See also section 5.2

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.  
Ethylene glycol,  
Diethylene glycol :  
Harmful if swallowed.

#### Potassium hydroxide (1310-58-3)

LD50/oral/rat	214 mg/kg
---------------	-----------

#### 2-ethylhexanoic acid (149-57-5)

LD50/oral/rat	3 g/kg
LD50/dermal/rat	> 2000 mg/kg
LD50/dermal/rabbit	1260 µl/kg
ATE (oral)	3000,000 mg/kg bodyweight

#### Ethylene glycol (107-21-1)

LD50/oral/rat	4000 mg/kg
LD50/dermal/rat	> 3500 mg/kg (mouse)
LC50/inhalation/4h/rat	> 2,5 (6h)
ATE (oral)	500,000 mg/kg bodyweight

#### Diethylene glycol (111-46-6)

LD50/oral/rat	12565 mg/kg
LD50/dermal/rabbit	11890 mg/kg
ATE (oral)	500,000 mg/kg bodyweight
ATE (dermal)	11890,000 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.  
potassium hydroxide :  
Causes skin irritation  
pH: No data available

Serious eye damage/irritation : Causes serious eye irritation.  
potassium hydroxide :  
Causes serious eye irritation  
pH: No data available

Respiratory/skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

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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	: Suspected of damaging the unborn child. 2-ethylhexanoic acid : Suspected of damaging the unborn child
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met.)
Specific target organ toxicity (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.)

### Further information

Symptoms related to the physical, chemical and toxicological characteristics, See section 4.2.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecotoxicity effects : Ecological injuries are not known or expected under normal use.

#### Potassium hydroxide (1310-58-3)

LC50 fish 1	80 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static])
-------------	--

#### 2-ethylhexanoic acid (149-57-5)

LC50 fish 1	70 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
-------------	--

EC50 Daphnia 1	85,4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
----------------	--

EC50 other aquatic organisms 1	61 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
--------------------------------	--

EC50 other aquatic organisms 2	41 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)
--------------------------------	--

#### 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)
----------------	---

EC50 other aquatic organisms 1	6500 - 13000 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)
--------------------------------	--

LC50 fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
-------------	--

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

Persistence and degradability : No data available

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### 12.3. Bioaccumulative potential

Bioaccumulation : No data available  
Partition coefficient: n-octanol/water : No data available

### 12.4. Mobility in soil

Mobility : Adsorbs on soil.

### 12.5. Results of PBT and vPvB assessment

PBT/vPvB : No data available

### 12.6. Other adverse effects

Further information : No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste from residues / unused products : Handle with care.  
See also section 7  
Where possible recycling is preferred to disposal or incineration.  
Collect and dispose of waste product at an authorised disposal facility.  
Dispose according to legislation.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Dispose according to legislation.

Additional ecological information : Avoid release to the environment.

List of suggested waste codes/waste designations in accordance with the EWC: : Classified as hazardous waste according to European Union regulations.  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

## SECTION 14: Transport information

### 14.1. UN number

UN-No. : NA

### 14.2. UN proper shipping name

Proper Shipping Name : NA

### 14.3. Transport hazard class(es)

#### **14.3.1. Overland transport**

ADR/RID : Not classified as dangerous in the meaning of transport regulations.  
Class : Not applicable

#### **14.3.2. Inland waterway transport (ADN)**

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ADN : Not classified as dangerous in the meaning of transport regulations.

#### 14.3.3. Transport by sea

IMDG : Not classified as dangerous in the meaning of transport regulations.  
Class : Not applicable

#### 14.3.4. Air transport

ICAO/IATA : Not classified as dangerous in the meaning of transport regulations.  
Class : Not applicable

#### 14.4. Packing group

Packing group : NA

#### 14.5. Environmental hazards

Other information : Not applicable.

#### 14.6. Special precautions for user

Special precautions : Not applicable.

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

Code: IBC : 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

Restrictions on use :

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

Long Life Engine Coolant Concentrate-C2053 - 2-ethylhexanoic acid -  
Ethylene glycol - Diethylene glycol

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

: none

Authorisations

: Not applicable

##### 15.1.2. National regulations

DE: WGK : 1

#### 15.2. Chemical safety assessment

Chemical Safety Assessment : No data available

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### SECTION 16: Other information

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

Acute Tox. 4 (Oral)	: Acute toxicity Category 4
Eye Irrit. 2	: Serious eye damage/eye irritation Category 2
Repr. 2	: Reproductive toxicity, Hazard Category 2
Skin Corr. 1A	: skin corrosion/irritation Category 1A
Skin Irrit. 2	: skin corrosion/irritation Category 2
H302	: Harmful if swallowed.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H319	: Causes serious eye irritation.
H361d	: Suspected of damaging the unborn child.
R22	: Harmful if swallowed.
R35	: Causes severe burns.
R36/38	: Irritating to eyes and skin.
R63	: Possible risk of harm to the unborn child.
C	: Corrosive
Xi	: Irritant
Xn	: Harmful

Sources of key data used to compile the Safety Data Sheet : European Chemicals Bureau

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 Explosion Limit/Upper Explosive Limit  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
CSR = CSR = Chemical Safety Report  
DNEL = DNEL = Derived No Effect Level  
LD50 = Median lethal dose  
N.O.S. = Not Otherwise Specified  
PNEC = Predicted No Effect Concentration  
TWA = time weighted average  
STEL = Short term exposure limit  
TLV = Threshold limits  
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.

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However,



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