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

### 1.1. Product identifier

Trade name/designation : Vaebond Contact

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

Main use category : Industrial uses

Specific use(s) : Adhesives

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

Company : Imperbel NV/SA  
 Bergensesteenweg 32  
 1651 Lot , Belgium  
 Telephone +32 2 334 87 00  
 Fax: +32 2 377 01 90  
 E-mail: infobe@derbigum.com  
 Website: www.derbigum.com

National representative : See section 16.

### 1.4. Emergency telephone number

Emergency telephone : + 32 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.


Flam. Liq. 2 H225  
 Skin Irrit. 2 H315  
 Eye Irrit. 2 H319  
 STOT SE 3 H336  
 Aquatic Acute 1 H400  
 Aquatic Chronic 1 H410

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 product is classified as dangerous in accordance with Directive 1999/45/EC.

F; R11  
 Xi; R36/38  
 N; R50/53  
 R67

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Full text of R-phrases: see section 16

## 2.2. Label elements

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

Hazard pictograms :



Signal word :

Danger

Contains:

Cyclohexane  
Ethyl acetate  
Aliphatic Hydrocarbon solvents

Hazard statements :

H225 - Highly flammable liquid and vapour.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H336 - May cause drowsiness or dizziness.  
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements :

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P280 - Wear protective gloves/protective clothing/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.  
P310 - Immediately call a POISON CENTER or doctor/ physician.

Extra phrases :

EUH208 - Contains Rosin. May produce an allergic reaction.

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

Not relevant

## 2.3. Other hazards

Other hazards :

Vapours are heavier than air and may spread along floors.  
Vapours can form explosive mixtures with air.  
Results of PBT and vPvB assessment :  
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
Cyclohexane	(CAS No.) 110-82-7 (EC No) 203-806-2 (EC Index) 601-017-00-1	20 - 30	F; R11 Xi; R38 N; R50/53 Xn; R65 R67
Ethyl acetate	(CAS No.) 141-78-6 (EC No) 205-500-4 (EC Index) 607-022-00-5	20 - 30	F; R11 Xi; R36 R66 R67
Aliphatic Hydrocarbon solvents	(CAS No.) 64742-49-0 (EC No) 265-151-9 (EC Index) -	10 - 20	F; R11 Xn; R65 Xi; R38 N; R51/53 R67
Rosin	(CAS No.) 8050-09-7 (EC No) 232-475-7 (EC Index) 650-015-00-7	< 1	R43

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Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
n-hexane	(CAS No.) 110-54-3 (EC No) 203-777-6 (EC Index) 601-037-00-0	< 1	F; R11 Repr.Cat.3; R62 Xn; R65 Xn; R48/20 Xi; R38 N; R51/53 R67
zinc oxide	(CAS No.) 1314-13-2 (EC No) 215-222-5 (EC Index) 030-013-00-7	< 1	N; R50/53

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cyclohexane	(CAS No.) 110-82-7 (EC No) 203-806-2 (EC Index) 601-017-00-1	20 - 30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Ethyl acetate	(CAS No.) 141-78-6 (EC No) 205-500-4 (EC Index) 607-022-00-5	20 - 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Aliphatic Hydrocarbon solvents	(CAS No.) 64742-49-0 (EC No) 265-151-9 (EC Index) -	10 - 20	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Rosin	(CAS No.) 8050-09-7 (EC No) 232-475-7 (EC Index) 650-015-00-7	< 1	Skin Sens. 1, H317
n-hexane	(CAS No.) 110-54-3 (EC No) 203-777-6 (EC Index) 601-037-00-0	< 1	Flam. Liq. 2, H225 Repr. 2, H361f Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411
zinc oxide	(CAS No.) 1314-13-2 (EC No) 215-222-5 (EC Index) 030-013-00-7	< 1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

Identification of the mixture : Adhesive .  
Contains organic solvents.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation : Provide fresh air.  
Keep warm and in a quiet place.  
Get medical advice/attention.

Skin contact : Take off immediately all contaminated clothing.  
Wash with plenty of soap and water.  
Get medical advice/attention.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Get medical attention if irritation develops and persists.

Ingestion : Rinse mouth.  
Drink 1 or 2 glasses of water.  
Do not induce vomiting.  
Get medical advice/attention.

Additional advice : First aider: Pay attention to self-protection!  
See also section 8 .  
Show this safety data sheet to the doctor in attendance.  
Never give anything by mouth to an unconscious person or a person with cramps.  
Treat symptomatically.

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

- Inhalation : Vapours may cause drowsiness and dizziness.  
Skin contact : Causes skin irritation. May cause an allergic skin reaction.  
Eye contact : Causes serious eye irritation.  
Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

#### **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 : Highly flammable liquid and vapour.  
Specific hazards : In use, may form flammable/explosive vapour-air mixture.  
Vapours are heavier than air and may spread along floors.  
Hazardous combustion products :  
Carbon oxides (CO, CO<sub>2</sub>).  
Do not allow run-off from fire-fighting to enter drains or water courses. Dispose according to legislation.

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

- Advice for firefighters : Special protective equipment for firefighters. :  
In case of fire: Wear self-contained breathing apparatus.  
Use water spray jet to protect personnel and to cool endangered containers.

### **SECTION 6: Accidental release measures**

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

- For non-emergency personnel : Provide adequate ventilation.  
Evacuate area.  
Use personal protective equipment as required.  
See also section 8.  
Avoid contact with skin and eyes.  
Do not breathe vapour/spray.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Ensure that the equipment is adequately grounded.  
For emergency responders : Only qualified personnel equipped with suitable protective equipment may intervene.  
See also section 8.

#### **6.2. Environmental precautions**

- Environmental precautions : Do not allow contact with soil, surface or ground water.  
Notify authorities if liquid enters sewers or public waters.

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

- Methods for cleaning up : Stop leak if safe to do so.  
Dam up.  
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

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Collect in closed and suitable containers for disposal.  
Dispose according to legislation.  
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**

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 .
- Avoid contact with skin and eyes.
- Do not breathe vapour/spray.
- Ensure that the equipment is adequately grounded.
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Do not smoke.
- After use replace the closing cap immediately.
- Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH value, time).
- Do not allow to enter into surface water or drains.

Advices on general occupational hygiene :

- Wash hands and face before breaks and immediately after handling of the product.
- When using do not eat or drink.
- Take off contaminated clothing and wash before reuse.
- Keep good industrial hygiene.

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

Storage :

- Storage of flammable liquids .
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Keep container tightly closed in a cool, well-ventilated place.
- Keep away from direct sunlight.
- Ensure that the equipment is adequately grounded.

Packaging material :

- Keep in properly labelled containers.
- Keep/Store only in original container.

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

not applicable.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

Exposure limit values :

<b>Rosin (8050-09-7)</b>		
France	VME (mg/m <sup>3</sup> )	0,1 mg/m <sup>3</sup>
Latvia	OEL TWA (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

<b>n-hexane (110-54-3)</b>		
EU	IOELV TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	20 ppm
Austria	MAK (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Austria	MAK (ppm)	20 ppm

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<b>n-hexane (110-54-3)</b>		
Austria	MAK Short time value (mg/m <sup>3</sup> )	288 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	80 ppm
Belgium	Limit value (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	20 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	72,0 mg/m <sup>3</sup>
Bulgaria	OEL TWA (ppm)	20 ppm
Cyprus	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Cyprus	OEL TWA (ppm)	20 ppm
France	VME (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup> (restrictive limit)
France	VME (ppm)	20 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	180 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	50 ppm
Germany	TRGS 903 (BGW)	5 mg/l (Medium: urine - Time: end of shift - Parameter: 2,5-Hexandione plus 4,5-Dihydroxy-2-hexanone (after hydrolysis))
Gibraltar	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Gibraltar	OEL TWA (ppm)	20 ppm
Greece	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	20 ppm
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	50 ppm
Italy	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Italy	OEL TWA (ppm)	20 ppm
Latvia	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Latvia	OEL TWA (ppm)	20 ppm
Spain	VLA-ED (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup> (indicative limit value)
Spain	VLA-ED (ppm)	20 ppm (indicative limit value)
Switzerland	VLE (mg/m <sup>3</sup> )	1440 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	400 ppm
Switzerland	VME (mg/m <sup>3</sup> )	180 mg/m <sup>3</sup>
Switzerland	VME (ppm)	50 ppm
Netherlands	MAC TGG 8H (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Netherlands	MAC TGG 15MIN (mg/m <sup>3</sup> )	144 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	20 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	216 mg/m <sup>3</sup> (calculated)
United Kingdom	WEL STEL (ppm)	60 ppm (calculated)
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	70 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	20 ppm
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	20 ppm
Hungary	AK-érték	72 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Lithuania	IPRV (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	20 ppm

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<b>n-hexane (110-54-3)</b>		
Malta	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Malta	OEL TWA (ppm)	20 ppm
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (AN) (ppm)	20 ppm
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m <sup>3</sup> )	108 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (Korttidsverdi) (ppm)	30 ppm
Poland	NDS (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	20 ppm
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	90 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	25 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	180 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	50 ppm

<b>zinc oxide (1314-13-2)</b>		
Austria	MAK (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Belgium	Limit value (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Belgium	Short time value (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	5,0 mg/m <sup>3</sup>
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	10,0 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Greece	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Greece	OEL STEL (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>
Italy - Portugal - USA ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Latvia	OEL TWA (mg/m <sup>3</sup> )	0,5 mg/m <sup>3</sup>
Spain	VLA-ED (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Spain	VLA-EC (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Switzerland	VLE (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Switzerland	VME (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	4 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min)	10 mg/m <sup>3</sup>
Hungary	AK-érték	5 mg/m <sup>3</sup>
Hungary	CK-érték	20 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Poland	NDS (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Romania	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

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**zinc oxide (1314-13-2)**

Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

**Ethyl acetate (141-78-6)**

Austria	MAK (mg/m <sup>3</sup> )	1050 mg/m <sup>3</sup>
Austria	MAK (ppm)	300 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	2100 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	600 ppm
Belgium	Limit value (mg/m <sup>3</sup> )	1461 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	400 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	800 mg/m <sup>3</sup>
France	VME (mg/m <sup>3</sup> )	1400 mg/m <sup>3</sup>
France	VME (ppm)	400 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	1500 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)	400 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Greece	OEL TWA (mg/m <sup>3</sup> )	1400 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	400 ppm
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	400 ppm
Latvia	OEL TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>
Spain	VLA-ED (mg/m <sup>3</sup> )	1460 mg/m <sup>3</sup>
Spain	VLA-ED (ppm)	400 ppm
Switzerland	VLE (mg/m <sup>3</sup> )	2800 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	800 ppm
Switzerland	VME (mg/m <sup>3</sup> )	1400 mg/m <sup>3</sup>
Switzerland	VME (ppm)	400 ppm
United Kingdom	WEL TWA (ppm)	200 ppm
United Kingdom	WEL STEL (ppm)	400 ppm
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	540 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	150 ppm
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	1100 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	300 ppm
Finland	HTP-arvo (15 min)	1800 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	500 ppm
Hungary	AK-érték	1400 mg/m <sup>3</sup>
Hungary	CK-érték	1400 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Lithuania	IPRV (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	150 ppm
Lithuania	NRV (mg/m <sup>3</sup> )	1100 mg/m <sup>3</sup>
Lithuania	NRV (ppm)	300 ppm
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	550 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (AN) (ppm)	150 ppm



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<b>Ethyl acetate (141-78-6)</b>		
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m <sup>3</sup> )	687,5 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (Korttidsverdi) (ppm)	187,5 ppm
Poland	NDS (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	400 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	111 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	139 ppm
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	1500 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	400 ppm
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	1100 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	500 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	150 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	1100 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	300 ppm

<b>Cyclohexane (110-82-7)</b>		
EU	IOELV TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	200 ppm
Austria	MAK (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Austria	MAK (ppm)	200 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	2800 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	800 ppm
Belgium	Limit value (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	100 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup>
Bulgaria	OEL TWA (ppm)	700,0 ppm
Cyprus	OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Cyprus	OEL TWA (ppm)	200 ppm
France	VLE (mg/m <sup>3</sup> )	1300 mg/m <sup>3</sup>
France	VLE (ppm)	375 ppm
France	VME (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup> (restrictive limit)
France	VME (ppm)	200 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	200 ppm
Germany	TRGS 903 (BGW)	150 mg/g (Medium: urine - Time: end of shift - Parameter: Total 1,2-Cyclohexandiol (after hydrolysis; measured as mg/g Creatinine) 150 mg/g (Medium: urine - Time: end of several shifts - Parameter: Total 1,2-Cyclohexandiol (after hydrolysis; measured as mg/g Creatinine; for long-term exposures)
Gibraltar	OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Gibraltar	OEL TWA (ppm)	200 ppm
Greece	OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	200 ppm

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<b>Cyclohexane (110-82-7)</b>		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	100 ppm
Italy	OEL TWA (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
Italy	OEL TWA (ppm)	100 ppm
Latvia	OEL TWA (mg/m <sup>3</sup> )	80 mg/m <sup>3</sup>
Latvia	OEL TWA (ppm)	23 ppm
Spain	VLA-ED (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup> (indicative limit value; manufacturing, commercialization, and use restrictions under REACH)
Spain	VLA-ED (ppm)	200 ppm (indicative limit value; manufacturing, commercialization, and use restrictions under REACH)
Switzerland	VLE (mg/m <sup>3</sup> )	2800 mg/m <sup>3</sup>
Switzerland	VLE (ppm)	800 ppm
Switzerland	VME (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Switzerland	VME (ppm)	200 ppm
Netherlands	MAC TGG 8H (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Netherlands	MAC TGG 15MIN (mg/m <sup>3</sup> )	1400 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	100 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	1050 mg/m <sup>3</sup> (calculated)
United Kingdom	WEL STEL (ppm)	300 ppm
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	172 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	50 ppm
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	100 ppm
Finland	HTP-arvo (15 min)	875 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	250 ppm
Hungary	AK-érték	700 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Lithuania	IPRV (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	200 ppm
Malta	OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Malta	OEL TWA (ppm)	200 ppm
Norway	Gjennomsnittsverdier (AN) (mg/m <sup>3</sup> )	525 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (AN) (ppm)	150 ppm
Norway	Gjennomsnittsverdier (Kortidsverdi) (mg/m <sup>3</sup> )	656,25 mg/m <sup>3</sup>
Norway	Gjennomsnittsverdier (Kortidsverdi) (ppm)	187,5 ppm
Poland	NDS (mg/m <sup>3</sup> )	300 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Romania	OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	200 ppm
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	200 ppm
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	300 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	1300 mg/m <sup>3</sup>

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<b>Cyclohexane (110-82-7)</b>		
Sweden	kortidsvärde (KTV) (ppm)	370 ppm

Recommended monitoring procedures: : Concentration measurement in air  
Personal monitoring

## **8.2. Exposure controls**

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

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.  
Respirator with a half face mask (EN140).  
Respirator with a full face mask (EN136).  
Recommended Filter type: A. (EN141)

Hand protection : Wear chemically resistant gloves (tested to EN374) . Short-term exposure (>30'), Penetration index 2 & Long-term exposure (>480'), Penetration index 6 : NBR (Nitrile rubber) (>0,4 mm). 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 / Wear eye glasses with side protection according to EN 166. .

Body protection : Wear suitable protective clothing.

Engineering control measures : Provide adequate ventilation.  
Use only in area provided with appropriate exhaust ventilation.  
A washing facility/water for eye and skin cleaning purposes should be present.  
Eye wash bottle with pure water .  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).  
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 : light yellow

Odour : solvent-like /,ester-like

Odour Threshold : no data available

pH : no data available

Melting point/range : no data available

Boiling point/boiling range : no data available

Flash point : < -22 °C

Evaporation rate : no data available

Explosion limits (LEL, UEL) : LEL: 1,1 vol %  
UEL: 11,5 vol %

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Vapour pressure	:	170 mbar (@ 20°C)
Vapour density	:	no data available
Density	:	0,84 - 0,94 g/cm <sup>3</sup> (@ 20°C)
Water solubility	:	Immiscible Slightly miscible
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	:	2000 - 2600 mPa.s (Brookfield, RVT, 20°C, Spindle n° 2, rot. freq. 50 min <sup>-1</sup> )
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**

Pour point	:	no data available
Volatile organic compounds (VOC) content in percent by weight :		58 % (VOCV 814.018)(CH)

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

#### **10.1. Reactivity**

Reactivity	:	Flammable liquid and vapour. See also section 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	:	None under normal processing.
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#### **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	:	None under normal processing.
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#### **10.6. Hazardous decomposition products**

Hazardous decomposition products	:	Burning produces noxious and toxic fumes. Hazardous decomposition products: COx.
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### **SECTION 11: Toxicological information**

#### **11.1. Information on toxicological effects**

Acute toxicity	:	Not classified (Based on available data, the classification criteria are not met.)
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<b>Aliphatic Hydrocarbon solvents (64742-49-0)</b>	
LD50/oral/rat	> 5000 mg/kg

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<b>Rosin (8050-09-7)</b>	
LD50/dermal/rabbit	> 2500 mg/kg
<b>n-hexane (110-54-3)</b>	
LD50/dermal/rabbit	3000 mg/kg
LC50/inhalation/4h/rat (ppm)	48000 ppm/4h
<b>zinc oxide (1314-13-2)</b>	
LD50/oral/rat	> 5000 mg/kg
LC50/inhalation/4h/rat	> 5700 mg/l/4h
<b>Ethyl acetate (141-78-6)</b>	
LD50/oral/rat	5620 mg/kg
LD50/dermal/rabbit	> 20 ml/kg
<b>Cyclohexane (110-82-7)</b>	
LD50/oral/rat	> 5000 mg/kg
LD50/dermal/rabbit	> 2000 mg/kg
LC50/inhalation/4h/rat	13,9 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation. Cyclohexane, Aliphatic Hydrocarbon solvents : Causes skin irritation. pH: no data available
Serious eye damage/eye irritation	: Causes serious eye irritation. Ethyl acetate : Causes serious eye irritation. pH: no data available
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.)
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness. Cyclohexane, Ethyl acetate, Aliphatic Hydrocarbon solvents : May cause drowsiness or dizziness.
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.)

#### Other information

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

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## SECTION 12: Ecological information

### 12.1. Toxicity

Toxicity : Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.  
Information given is based on data on the components and the ecotoxicology of similar products.

<b>Rosin (8050-09-7)</b>	
EC50 Daphnia 1	3,8 - 5,4 mg/l (Exposure time: 48 h - Species: Daphnia magna)

<b>n-hexane (110-54-3)</b>	
LC50 fish 1	2,1 - 2,98 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	(48h) 3,87 mg/l
LC50 fish 2	(96h) 4,12 mg/l Lepomis macrochirus (Bluegill)

<b>zinc oxide (1314-13-2)</b>	
LC50 fish 1	(96h) 1,793 mg/l Danio rerio (zebra fish)
EC50 Daphnia 1	(48h) 2,6 mg/l (Daphnia Magna)
NOEC (additional information)	NOEC, Fish 101ug/L (M.bahia)

<b>Ethyl acetate (141-78-6)</b>	
LC50 fish 1	220 - 250 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	560 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	484 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

<b>Cyclohexane (110-82-7)</b>	
LC50 fish 1	3,96 - 5,18 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	23,03 - 42,07 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

### 12.2. Persistence and degradability

Persistence and degradability : CAS 141-78-6, CAS 110-54-3  
Readily biodegradable.

### 12.3. Bioaccumulative potential

Bioaccumulation : Cyclohexane  
Low potential  
Partition coefficient: n-octanol/water : no data available

### 12.4. Mobility in soil

Mobility : This information is not available.

### 12.5. Results of PBT and vPvB assessment

PBT/vPvB : This information is not available.

### 12.6. Other adverse effects

Other information : No information available.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Waste from residues / unused products : Handle with care.  
See also section 7.  
Handling and storage .  
Do not allow to enter into surface water or drains.  
Dispose according to legislation.  
Where possible recycling is preferred to disposal or incineration.  
Collect and dispose of waste product at an authorised disposal facility.
- Contaminated packaging : Do not burn, or use a cutting torch on, the empty drum.  
Do not puncture or incinerate.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.
- List of suggested waste codes/waste designations in accordance with the EWC: : Classified as hazardous waste according to European Union regulations.  
The following Waste Codes are only suggestions:  
08 04 09\* - waste adhesives and sealants containing organic solvents or other dangerous substances,  
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

### 14.1. UN number

UN-No. : 1133

### 14.2. UN proper shipping name

Proper Shipping Name : ADHESIVES  
Proper shipping name IATA/IMDG : ADHESIVES

### 14.3. Transport hazard class(es)

#### 14.3.1. Overland transport

Class : 3 - Flammable liquid  
Hazard identification number (Kemler No.) : 33  
Classification code : F1  
ADR/RID-Labels : 3 - Flammable liquid



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

Class (UN) : 3

#### 14.3.3. Transport by sea

Class or Division : 3 - Flammable liquids

#### 14.3.4. Air transport

Class or Division : 3 - Flammable liquids

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#### **14.4. Packing group**

Packing group : III

#### **14.5. Environmental hazards**

Environmental hazards : P



Other information : No supplementary information available.

#### **14.6 Special precautions for user**

Special precautions for user : Special Provision 640H.

#### **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 : REACH Annex XVII Art 3, 40 & 57

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 : Vaebond Contact - Cyclohexane - n-hexane

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. : Vaebond Contact - Cyclohexane - Aliphatic Hydrocarbon solvents - n-hexane

57. Cyclohexane : Cyclohexane

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

: none

Authorisations : not applicable

Volatile organic compounds (VOC) content in percent by weight: : 58 % (VOCV 814.018)(CH)

##### **15.1.2. National regulations**

DE : WGK : 2

DE : German storage class (LGK) : LGK 3 - Flammable liquid materials (Flashpoint < 55 °C)

DE : Technische Regeln für Gefahrstoffe (TRGS) : applicable



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DE : Risk classification according to VbF : A I - Liquids with a flashpoint below 21°C  
FR : Installations classées : 143x  
NL : ABM : 4 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. (A)  
NL : NeR (Nederlandse emissie Richtlijn) : Organic substances in vapour or gaseous form  
CH: WGK CH : 2

### 15.2. Chemical safety assessment

Chemical Safety Assessment : no data available

## **SECTION 16: Other information**

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

Aquatic Acute 1	: Hazardous to the aquatic environment - Aquatic Acute 1
Aquatic Chronic 1	: Hazardous to the aquatic environment - chronic hazard category 1
Aquatic Chronic 2	: Hazardous to the aquatic environment - chronic hazard category 2
Asp. Tox. 1	: Aspiration hazard, Category 1
Eye Irrit. 2	: Serious eye damage/eye irritation Category 2
Flam. Liq. 2	: Flammable liquids, Category 2
Repr. 2	: Reproductive toxicity, Hazard Category 2
Skin Irrit. 2	: Skin corrosion/irritation, Category 2
Skin Sens. 1	: Skin sensitisation, hazard category 1
STOT RE 2	: Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	: Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	: Highly flammable liquid and vapour.
H304	: May be fatal if swallowed and enters airways.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H336	: May cause drowsiness or dizziness.
H361f	: Suspected of damaging fertility.
H373	: May cause damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.
R11	: Highly flammable.
R36	: Irritating to eyes.
R36/38	: Irritating to eyes and skin.
R38	: Irritating to skin.
R43	: May cause sensitisation by skin contact.
R48/20	: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50/53	: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	: Possible risk of impaired fertility.
R65	: Harmful: may cause lung damage if swallowed.
R66	: Repeated exposure may cause skin dryness or cracking.
R67	: Vapours may cause drowsiness and dizziness.
F	: Highly flammable
N	: Dangerous for the environment
Xi	: Irritant
Xn	: Harmful
Key literature references and sources for data	: European Chemicals Bureau ( <a href="http://esis.jrc.ec.europa.eu">http://esis.jrc.ec.europa.eu</a> ) SDS from supplier, dated 26.07.2012
Other information	: Assessment/classification, CLP, Calculation method, Article 9

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Safety datasheet sections which have : 2,4,5,10,11,12,16  
been updated:

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  
LD50 = Median lethal dose  
LC50 = Median lethal concentration  
EC50 = Median Effective 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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