

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### ARC HT-S(E) Part A

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

##### 1.1. Product identifier

ARC HT-S(E) Part A

UFI: WVYQ-YQWR-S53F-K7QP

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

###### Use of the substance/mixture

ARC Polymer Composite to be mixed with ARC HT-S(E) (Part B) to provide a corrosion resistant coating for hot water/steam environment.

###### Uses advised against

No data available

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

Company name:	Chesterton International GmbH	
Street:	Am Lenzenfleck 23	
Place:	D-85737 Ismaning GERMANY	
Telephone:	+49 89 99 65 46 - 0	Telefax: +49 89 99 65 46 - 50
e-mail:	eu-sds@chesterton.com	
e-mail (Contact person):	eu-sds@chesterton.com	
Internet:	www.chesterton.com	
Responsible Department:	eu-sds@chesterton.com	

##### 1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No 1272/2008

Skin Irrit. 2; H315  
Eye Dam. 1; H318  
Skin Sens. 1; H317  
STOT RE 2; H373  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

###### Regulation (EC) No 1272/2008

###### Hazard components for labelling

Epoxy phenol novolac resin  
1,4-bis(2,3 epoxypropoxy)butane  
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane  
Quartz - Crystalline Silica  
Phenol, styrenated

**Signal word:** Danger

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#### Pictograms:



#### Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing 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/doctor.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

#### Special labelling of certain mixtures

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
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#### 2.3. Other hazards

The safety and health hazards are detailed separately for Part A and Part B. The final cured material is considered nonhazardous. Upon machining, refer to the precautions in the safety data sheets for Part A and Part B.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

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#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
28064-14-4	Epoxy phenol novolac resin			20 - < 25 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane			5 - < 10 %
	219-371-7		01-2119494060-45	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3; H332 H312 H302 H315 H318 H317 H412			
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane			5 - < 10 %
	219-784-2		01-2119513212-58	
	Eye Dam. 1, Aquatic Chronic 3; H318 H412			
14808-60-7	Quartz - Crystalline Silica			1 - < 5 %
	238-878-4			
	STOT RE 1; H372			
13463-67-7	titanium dioxide			1 - < 5 %
	236-675-5	022-006-00-2	01-2119489379-17	
	Carc. 2; H351			
61788-44-1	Phenol, styrenated			< 0.1 %
	262-975-0		01-2119980970-27	
	Skin Irrit. 2, Skin Sens. 1A, Aquatic Chronic 2; H315 H317 H411			

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
2425-79-8	219-371-7	1,4-bis(2,3 epoxypropoxy)butane	5 - < 10 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2150 mg/kg; oral: LD50 = 1163 mg/kg	
2530-83-8	219-784-2	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	5 - < 10 %
		oral: LD50 = 16900 mg/kg	
13463-67-7	236-675-5	titanium dioxide	1 - < 5 %
		oral: LD50 = > 2000 mg/kg	
61788-44-1	262-975-0	Phenol, styrenated	< 0.1 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

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#### General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

#### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. If breathing is irregular or stopped, administer artificial respiration. Immediately call a doctor.

#### After contact with skin

Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. In case of skin irritation, consult a physician.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

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

Processing vapours can irritate the respiratory tracts, skin and eyes. Ingestion causes nausea, weakness and central nervous system effects.

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

First Aid, decontamination, treatment of symptoms.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

- alcohol resistant foam
- Water spray jet
- Carbon dioxide (CO<sub>2</sub>)
- Dry extinguishing powder

##### Unsuitable extinguishing media

Full water jet

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

In case of fire may be liberated:

- Carbon monoxide
- Carbon dioxide
- Nitrogen oxides (NO<sub>x</sub>)

#### 5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings.

In case of fire: Wear self-contained breathing apparatus.

Special protective equipment for firefighters: Protective clothing.

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#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Dispose of waste according to applicable legislation.

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

##### General advice

Wear personal protection equipment (refer to section 8).  
Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. When using do not eat, drink or smoke.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Adverse environmental effects

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

##### For containment

Take up mechanically, placing in appropriate containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Wear personal protection equipment (refer to section 8).  
Avoid dust formation., Do not breathe dust.  
Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. When using do not eat, drink or smoke.

##### Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

##### Advice on general occupational hygiene

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

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#### Further information on storage conditions

Keep away from:

- Frost
- Heat
- Humidity

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

No information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
1344-28-1	Aluminium oxides, respirable dust	-	4		TWA (8 h)	
1317-65-3	Marble, respirable dust	-	4		TWA (8 h)	
14808-60-7	Quartz, respirable dust (crystalline silica)	-	0.1		TWA (8 h)	
13463-67-7	Titanium dioxide, total inhalable dust	-	10		TWA (8 h)	

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#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1344-28-1	Aluminium oxide			
Worker DNEL, long-term		inhalation	systemic	3 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	3 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	0,84 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,75 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	0,75 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	0,3 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	1,32 mg/kg bw/day
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane			
Worker DNEL, long-term		inhalation	systemic	4,7 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	6,66 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,16 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	3,33 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,33 mg/kg bw/day
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane			
Worker DNEL, long-term		inhalation	systemic	70,5 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	10 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	17 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	systemic	26400 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	5 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	5 mg/kg bw/day
13463-67-7	titanium dioxide			
Worker DNEL, long-term		inhalation	local	1,25 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	700 mg/kg bw/day
61788-44-1	Phenol, styrenated			
Worker DNEL, long-term		inhalation	systemic	7,4 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	2,1 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,31 mg/m <sup>3</sup>

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Consumer DNEL, long-term	dermal	systemic	0,75 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,75 mg/kg bw/day

#### PNEC values

CAS No	Substance	Value
Environmental compartment		
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane	
Freshwater		0,024 mg/l
Freshwater (intermittent releases)		0,24 mg/l
Marine water		0,002 mg/l
Freshwater sediment		0,084 mg/kg
Marine sediment		0,008 mg/kg
Secondary poisoning		0,028 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0,003 mg/kg
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	
Freshwater		0,45 mg/l
Freshwater (intermittent releases)		0,45 mg/l
Marine water		0,045 mg/l
Freshwater sediment		1,6 mg/kg
Marine sediment		0,16 mg/kg
Micro-organisms in sewage treatment plants (STP)		8,2 mg/l
Soil		0,063 mg/kg
61788-44-1	Phenol, styrenated	
Freshwater		0,004 mg/l
Freshwater (intermittent releases)		0,046 mg/l
Marine water		0,0004 mg/l
Freshwater sediment		0,248 mg/kg
Marine sediment		0,0248 mg/kg
Micro-organisms in sewage treatment plants (STP)		36,2 mg/l
Soil		0,0473 mg/kg

#### 8.2. Exposure controls

##### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. Avoid dust formation. Knock down dust with water spray jet.

##### Individual protection measures, such as personal protective equipment



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#### Eye/face protection

Suitable eye protection:

Eye glasses with side protection  
goggles

#### Hand protection

Tested protective gloves must be worn: EN ISO 374

NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Wearing time with permanent contact: Thickness of the glove material:  $\geq 0,4$  mm, Breakthrough time:  $>480$  min

Wearing time with occasional contact (splashes): Thickness of the glove material:  $\geq 0,1$  mm, Breakthrough time:  $> 30$  min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Breakthrough times and swelling properties of the material must be taken into consideration.

#### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Combination filtering device A-P2

#### Thermal hazards

No data available

#### Environmental exposure controls

see also

Section 6: Accidental Release Measures

Section 12: Ecological Information (non-mandatory)

## SECTION 9: Physical and chemical properties

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

Physical state:	viscous	
Colour:	grey / blue	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability		
Solid/liquid:		No data available
Gas:		No data available
Flash point:		100 °C
Decomposition temperature:		No data available
pH-Value:		No data available
Water solubility:		practically insoluble
Solubility in other solvents		
No information available.		
Density (at 23 °C):		~ 1,8 g/cm <sup>3</sup>
Relative vapour density:		No data available

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#### **9.2. Other information**

##### **Information with regard to physical hazard classes**

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No information available.

##### **Other safety characteristics**

Evaporation rate:

No data available

Viscosity / dynamic:

31000 - 34000 mPa·s

(at 25 °C)

##### **Further Information**

No information available.

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane: hydrolyzes in water or moist air, releasing methanol and organosilicons.

#### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

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

The product is stable under storage at normal ambient temperatures.

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

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

#### **10.5. Incompatible materials**

- Strong acid
- Strong alkali
- Oxidising agent, strong
- Chlorine
- Oxygen,

#### **10.6. Hazardous decomposition products**

Carbon monoxide, aldehydes, Gases/vapours, toxic. May generate Formaldehyde at temperatures greater than 150°C (300°F).

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane: hydrolyzes in water or moist air, releasing methanol and organosilicons.

### SECTION 11: Toxicological information

#### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

##### **Acute toxicity**

Based on available data, the classification criteria are not met.

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#### ATEmix calculated

ATE (oral) 13141,2 mg/kg; ATE (dermal) 12429,4 mg/kg; ATE (inhalation vapour) 124,29 mg/l; ATE (inhalation dust/mist) 16,949 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane				
	oral	LD50 1163 mg/kg	Rat	Study report (1988)	OECD Guideline 401
	dermal	LD50 > 2150 mg/kg	Rat	Study report (1972)	OECD Guideline 402
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane				
	oral	LD50 16900 mg/kg	Rat	Study report (1978)	OECD Guideline 401
13463-67-7	titanium dioxide				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1996)	OECD Guideline 401
61788-44-1	Phenol, styrenated				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2014)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2014)	OECD Guideline 402

#### Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

#### Sensitising effects

May cause an allergic skin reaction. (Epoxy phenol novolac resin; 1,4-bis(2,3 epoxypropoxy)butane; Phenol, styrenated)

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Quartz - Crystalline Silica)

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

No data available

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#### SECTION 12: Ecological information

##### 12.1. Toxicity

Harmful to aquatic life with long lasting effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane					
	Acute algae toxicity	ErC50 > 160 mg/l	72 h	Raphidocelis subcapitata	Study report (2010)	OECD Guideline 201
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane					
	Acute fish toxicity	LC50 55 mg/l	96 h	Cyprinus carpio	REACH Registration Dossier	EU Method C.1
	Acute algae toxicity	ErC50 350 mg/l	96 h	Raphidocelis subcapitata	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 324 mg/l	48 h	Simocephalus vetulus	REACH Registration Dossier	USEPA. 1975. Methods for Acute Toxicity
	Crustacea toxicity	NOEC >= 100 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211
	Acute bacteria toxicity	(EC50 > 100 mg/l)	3 h	activated sludge of a predominantly domestic sewage	REACH Registration Dossier	OECD Guideline 209
13463-67-7	titanium dioxide					
	Acute fish toxicity	LC50 > 100 mg/l	96 h	Carassius auratus	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 > 50 mg/l	72 h	Raphidocelis subcapitata	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Artemia salina	REACH Registration Dossier	OECD Guideline 202
	Fish toxicity	NOEC >= 80 mg/l	6 d	Danio rerio	REACH Registration Dossier	OECD TG 210
	Algae toxicity	NOEC >= 1 mg/l	32 d	Synedra ulna, Scenedesmus quadricauda, Stigeocloni	Environ. Tox. Chem. 31, 2414-2422 (2012)	In this study, the authors report the re
	Crustacea toxicity	NOEC > 1 mg/l	10 d	Chironomus riparius	REACH Registration Dossier	other: OECD Guideline 219
	Acute bacteria toxicity	(EC50 > 1000 mg/l)	3 h	activated sludge, domestic	REACH Registration Dossier	OECD Guideline 209
61788-44-1	Phenol, styrenated					

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	Acute fish toxicity	LC50	5,6 mg/l	96 h		REACH Registration Dossier	other: Refer below principle
	Acute algae toxicity	ErC50 mg/l	20,42	72 h	Chlorella vulgaris	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	4,6 mg/l	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Fish toxicity	NOEC mg/l	0,0618	63 d	Danio rerio	REACH Registration Dossier	other: OECD 234 Fish Sexual Development
	Crustacea toxicity	NOEC	0,2 mg/l	21 d	Daphnia magna	REACH Registration Dossier	other: Refer below principle

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

No information available.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
61788-44-1	Phenol, styrenated			
	OECD 301F	7%	28	
	Not readily biodegradable (according to OECD criteria)			

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

##### **Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane	-0,269
2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	0,5
61788-44-1	Phenol, styrenated	3,03

##### **BCF**

CAS No	Chemical name	BCF	Species	Source
13463-67-7	titanium dioxide	> 0,47 - < 3,19	Artemia salina	REACH Registration D
61788-44-1	Phenol, styrenated	168	Cyprinus carpio	<a href="http://www.safe.nite">http://www.safe.nite</a>

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

No information available.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### **12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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#### **12.7. Other adverse effects**

No information available.

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

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

##### **Disposal recommendations**

Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

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

#### **Land transport (ADR/RID)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

#### **Inland waterways transport (ADN)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

#### **Marine transport (IMDG)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

#### **Air transport (ICAO-TI/IATA-DGR)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

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

ENVIRONMENTALLY HAZARDOUS: No

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

No information available.

#### **14.7. Maritime transport in bulk according to IMO instruments**

No information available.

### **SECTION 15: Regulatory information**

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

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#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

#### Additional information

MAL- Code (DK): the value does apply to the "Ready for use" - mixture of Part A and Part B

#### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

1,4-bis(2,3 epoxypropoxy)butane  
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane  
titanium dioxide  
Phenol, styrenated

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 2,5,6,7,8,9,10,11,12,15.

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer  
(Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
CAS: Chemical Abstracts Service  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%



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ErC50: Effective Concentration 50%, growth rate  
 NOEC: No Observed Effect Concentration  
 BCF: Bio-concentration factor  
 PBT: persistent, bioaccumulative, toxic  
 vPvB: very persistent, very bioaccumulative  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 SVHC: Substance of Very High Concern

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
STOT RE 2; H373	
Aquatic Chronic 3; H412	Calculation method

#### Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H372	Causes damage to organs (lung) through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*