

Contact Sheet



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Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 1 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

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

1.1 Product identifier

Product Name: Steel Reinforced Epoxy Resin - Twin Tube - Part A
Product code: 8265, 8265S, 8265H, 80165, 8280, 8281, 8272, 8276, 80176, 8270, 8271



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

Relevant identified uses: Not determined or not applicable.
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer:
United States
J-B Weld Company, LLC
1130 COMO ST.
SULPHUR SPRINGS, TX 75482
903-885-7696
info@jbweld.com

1.4 Emergency telephone number:

United States
CHEMTREC
Transportation Emergencies (24 hour): 800-424-9300 or
703-527-3887
Poison Control Centers (24 hour): medical emergencies 800-222-1222

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture:

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

Eye irritation, category 2A
Skin irritation, category 2
Skin sensitization, category 1
Chronic aquatic hazard, category 2

Hazard-determining components of labeling:

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran
Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol
1,4-bis(2,3 epoxypropoxy)butane
(3-Glycidoxypropyl)trimethoxysilane

2.2 Label elements

Hazard pictograms:



Signal word: Warning

Hazard statements:

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P264 Wash skin thoroughly after handling.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 2 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists get medical advice/attention
P321 Specific treatment (see supplemental first aid instructions on this label).
P362 Take off contaminated clothing and wash before reuse
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P332+P313 If skin irritation occurs: Get medical advice/attention
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P391 Collect spillage
P501 Dispose of contents and container as instructed in Section 13.

2.3 Other hazards: None known

SECTION 3: Composition/information on ingredients

3.1 Substance: Not applicable.

3.2 Mixture:

Identification	Name	Classification according to Regulation (EC) No. 1272/2008 (CLP)	Weight %
CAS number: 1317-65-3 EC number: 215-279-6	Limestone	Not classified	41.95
CAS number: 25068-38-6 EC number: 500-033-5	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Skin Sens. 1; H317 Skin Irrit. 2 ; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	26.5
CAS number: 7439-89-6 EC number: 231-096-4	Iron	Not classified	11.1
CAS number: 14807-96-6 EC number: 238-877-9	Talc	Not classified	8.15
CAS number: 9003-36-5 EC number: 500-006-8	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	Skin Sens. 1; H317 Skin Irrit. 2 ; H315 Aquatic Chronic 2; H411	4.65
CAS number: 2425-79-8 EC number: 219-371-7	1,4-bis(2,3 epoxypropoxy)butane	Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Sens. 1; H317 Skin Irrit. 2 ; H315 Eye Irrit. 2; H319	3.85

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 3 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

CAS number: 65997-17-3 EC number: 266-046-0	Glass, oxide, chemicals	Carc. 1B; H350	2
CAS number: 2530-83-8 EC number: 219-784-2	(3-Glycidoxypropyl)trimethoxysilane	Eye Dam. 1; H318	0.75
CAS number: 1302-78-9 EC number: 215-108-5	Bentonite	Not classified	0.7
CAS number: 67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica	Not classified	0.35

Additional information:

Fiberglass powder (CAS # 65997-17-3) is classified as a carcinogen in its inhalable form. Since the fiberglass powder in this product is not inhalable, the product itself is not classified as a carcinogen in the form presented.

Full Text of H and EUH statements: See section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Not determined or not available.

Following inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

Following skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Take off all contaminated clothing

Gently blot or brush away excess product

Wash with plenty of lukewarm, gently flowing water

Get medical advice if skin irritation occurs or you feel unwell

Following eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open

Remove contact lenses, if present and easy to do so

Continue rinsing for 15-20 minutes

Get medical advice if eye irritation persists

Following ingestion:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

4.3 Indication of any immediate medical attention and special treatment needed

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 4 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing media:

Not determined or not applicable.

5.2 Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Personal protection equipment:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion.

Heating causes a rise in pressure, risk of bursting and combustion.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.

Ensure air handling systems are operational.

Wear protective eye wear, gloves and clothing.

6.2 Environmental precautions:

Should not be released into the environment.

Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing.

Sweep or scoop up solid material while minimizing dust generation.

Dispose of contents / container in accordance with local regulations.

6.4 Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Use only with adequate ventilation.

Avoid breathing dust.

Do not eat, drink, smoke or use personal products when handling chemical substances.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.

Keep container dry.

Store in a cool, well-ventilated area.

7.3 Specific end use(s):

Not determined or not applicable.

SECTION 8: Exposure controls/personal protection

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 5 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A



8.1 Control parameters

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Czech Republic	Iron	7439-89-6	8-hour TWA: 10 mg/m ³
	Bentonite	1302-78-9	8-hour TWA: 6.0 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 5.0 mg/m ³ (glass laminate dusts)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1.0 fibers/cm ³ (respirable fibers)
	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 4 mg/m ³ (synthetic mineral fibers - all sizes)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1.0 fibers/cm ³ (synthetic mineral respirable fibers)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 0.3 fibers/cm ³ (ceramic respirable fibers)
	Talc	14807-96-6	8-hour TWA: 2.0 mg/m ³ (dust, respirable fraction, Fr ≤ 5%)
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (dust, respirable fraction, Fr > 5%)
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (dust, total concentration)
Talc	14807-96-6	8-hour TWA: 5.0 mg/m ³ (polymeric material dust)	
Slovakia	Iron	7439-89-6	8-hour TWA: 6 mg/m ³
	Bentonite	1302-78-9	8-hour TWA (NPEL): 6 mg/m ³
	Limestone	1317-65-3	NPEL TWA 8-hr: 10 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour TWA (NPEL): 2 fibers/cm ³ (4 mg/m ³)
	Talc	14807-96-6	8-hour TWA (NPEL): 2 mg/m ³ (respirable fraction, Fr ≤ 5%)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (respirable fraction, Fr > 5%)
Bulgaria	Iron	7439-89-6	TWA: 6 mg/m ³
	Glass, oxide, chemicals	65997-17-3	TWA: 6.0 mg/m ³ (inhalable fraction)
	Bentonite	1302-78-9	TWA: 6.0 mg/m ³ (inhalable fraction)
	Glass, oxide, chemicals	65997-17-3	TWA: 1.0 fibres/cm ³ (respirable fraction)
	Bentonite	1302-78-9	TWA: 3.0 mg/m ³ (respirable fraction)
	Limestone	1317-65-3	TWA: 10 mg/m ³

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 6 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Talc	14807-96-6	TWA: 6.0 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	TWA: 3.0 mg/m ³ (respirable fraction)
Cyprus	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 10 mg/m ³
	Talc	14807-96-6	8-hour TWA: 706 particles/cm ³
Croatia	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³ (Total dust); 4 mg/m ³ (Respirable dust)
	Talc	14807-96-6	Maximum (8 hr) allowable concentration: 1 mg/m ³ (respirable dust)
Estonia	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³ ; 5 mg/m ³ (Fine dust)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (total dust)
	Talc	14807-96-6	8-hour TWA: 5 mg/m ³ (fine dust)
	Talc	14807-96-6	8-hour TWA: 3 mg/m ³ (plastic)
	Talc	14807-96-6	8-hour TWA: 1 mg/m ³ (textile)
	Talc	14807-96-6	8-hour TWA: 5 mg/m ³ (organic dust, total dust)
Hungary	Limestone	1317-65-3	ÁK Value TWA 8-hr: 221 mg/m ³ ; CK Value STEL 60-min 442 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-Hour TWA (ÁK Value): 1.0 fibers/cm ³
	Talc	14807-96-6	8-hour TWA (ÁK Value): 2 mg/m ³ (respirable)
	Talc	14807-96-6	8-hour TWA (ÁK Value): 10 mg/m ³ (total, inhalable)
Romania	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (glass wool fibers - respirable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (rock wool fibers - respirable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (slag wool fibers - respirable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (special purpose glass fibers - respirable fraction)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (inhalable fraction)
Latvia	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 2 mg/m ³
	Talc	14807-96-6	8-hour TWA: 4 mg/m ³ (tuff, pumice, perlite)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (natural and synthetic)
	Talc	14807-96-6	8-hour TWA: 5 mg/m ³ (polymers)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (abrasive dusts)

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 7 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Talc	14807-96-6	8-hour TWA: 4 mg/m ³ (tal-like dust)
Belgium	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 10 mg/m ³ (glass - fibers or dusts of)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	8-hour TWA: 3 mg/m ³ (respirable fraction)
Lithuania	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (glass fiber)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 0.2 fibers/cm ³ (synthetic inorganic, crystal fibers)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (synthetic inorganic, amorphous fibers)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	8-hour TWA: 1 mg/m ³ (respirable fraction)
Finland	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour limit: 5 mg/m ³
	Talc	14807-96-6	15-minute limit: 2 ppm (inhalable)
	Talc	14807-96-6	15-minute limit: 1 ppm (respirable)
France	Limestone	1317-65-3	VME TWA: 10 mg/m ³
	Talc	14807-96-6	Time weighted average (VME): 10 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	Time weighted average (VME): 5 mg/m ³ (respirable fraction)
Greece	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³ (Inhalable dust); 5 mg/m ³ (Respirable dust)
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (inhalable)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (respirable)
Poland	Glass, oxide, chemicals	65997-17-3	8-hour TWA(NDS): 2.0 mg/m ³ (inhalable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA (NDS): 1.0 fibers/cm ³ (respirable fibers)
	Talc	14807-96-6	8-hour TWA (NDS): 4 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	8-hour TWA (NDS): 1 mg/m ³ (respirable fraction)
Ireland	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³ (Total dust); 4 mg/m ³ (Respirable dust)
	Glass, oxide, chemicals	65997-17-3	8-hour OEL (TWA): 2 fibers/cm ³ of air (5 mg/m ³)

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 8 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Talc	14807-96-6	8-hour OEL (TWA): 10 mg/m ³ (total inhalable dust)
	Talc	14807-96-6	8-hour OEL (TWA): 0.8 mg/m ³ (respirable fraction)
United Kingdom	Limestone	1317-65-3	TWA 8-hr: 10 mg/m ³ (Total dust); 4 mg/m ³ (Respirable dust)
	Glass, oxide, chemicals	65997-17-3	TWA: 1 fibre/mL (5 mg/m ³)
	Talc	14807-96-6	TWA: 1 mg/m ³ (respirable dust)
Slovenia	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 500000 fibers/m ³
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (Respirable fraction)
Denmark	Glass, oxide, chemicals	65997-17-3	TWA: 1 fibers/cm ³
Italy	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibres/cm ³
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (respirable fraction)
Netherlands	Glass, oxide, chemicals	65997-17-3	Binding 8-hour TWA: 0.5 fibre/cm ³
	Talc	14807-96-6	8-hour TWA: 0.25 mg/m ³ (respirable)
Portugal	Glass, oxide, chemicals	65997-17-3	NP 1796-2007 8-hour exposure limit: 1 fibres/cm ³
	Talc	14807-96-6	NP 1796-2007 8-hour exposure limit: 2 mg/m ³ (respirable fraction)
Spain	Glass, oxide, chemicals	65997-17-3	8-hour daily exposure limit (VLA_ED): 0.5 fibres/cm ³
	Talc	14807-96-6	8-hour daily exposure limit (VLA_ED): 2 mg/m ³ (respirable fraction)
Sweden	Glass, oxide, chemicals	65997-17-3	Level Limit Value (NGV): 1 fiber/mL
	Talc	14807-96-6	Level Limit Value (NGV): 2 mg/m ³ (total dust)
	Talc	14807-96-6	Level Limit Value (NGV): 1 mg/m ³ (respirable dust)
Germany	Talc	14807-96-6	AGW Limit value: 1.25 mg/m ³ (respirable fraction)
	Talc	14807-96-6	AGW limit value: 10 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	AGW Short term (15 min) exposure limit: 20 mg/m ³ (inhalable fraction)

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Not determined or not applicable.

Predicted No Effect Concentration (PNEC):

Not determined or not applicable.

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 9 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

workplace may be required to confirm compliance with an OEL and adequacy of exposure controls
Biological monitoring may also be appropriate for some substances

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

Environmental exposure controls:

Select controls based on a risk assessment of local conditions.

See section 6 for information on accidental release measures.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Dark black solid
Odor	Ethereal (slight)
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Closed cup: >93.3°C (>199.9°F) [Setaflash.] [Product does not sustain combustion.]
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	1.927
Solubilities	Insoluble in the following materials: cold water and hot water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 10 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Decomposition temperature	>220 °C (>428 °F)
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

9.2 Other information

Flammability	Non-flammable in the presence of the following materials or conditions: heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.
VOC Content	<1%

SECTION 10: Stability and reactivity

10.1 Reactivity:

Does not react under normal conditions of use and storage.

10.2 Chemical stability:

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions:

None under normal conditions of use and storage.

10.4 Conditions to avoid:

None known.

10.5 Incompatible materials:

None known.

10.6 Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

Product data: No data available.

Substance data:

Name	Route	Result
1,4-bis(2,3 epoxypropoxy)butane	dermal	LD50 - Rabbit - 1,130 mg/kg

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data:

No data available.

Substance data:

Name	Result
Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	Causes skin irritation.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 11 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Causes skin irritation.
1,4-bis(2,3 epoxypropoxy)butane	Causes skin irritation.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data:

No data available.

Substance data:

Name	Result
(3-Glycidoxypropyl)trimethoxysilane	Causes serious eye damage.
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Causes serious eye irritation.
1,4-bis(2,3 epoxypropoxy)butane	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction

Product data:

No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	May cause an allergic skin reaction.
Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	May cause an allergic skin reaction.
1,4-bis(2,3 epoxypropoxy)butane	May cause an allergic skin reaction.

Carcinogenicity

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

Product data: No data available.

Substance data:

Name	Species	Result
Glass, oxide, chemicals	Not applicable	May cause cancer via inhalation.

International Agency for Research on Cancer (IARC):

Name	Classification
Glass, oxide, chemicals	Group 2B
Talc	Group 3 - Not classifiable as to its carcinogenicity to humans

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 12 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

National Toxicology Program (NTP):

Name	Classification
Glass, oxide, chemicals	Reasonably anticipated to be human carcinogens

Germ cell mutagenicity

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

Product data: No data available.

Substance data: No data available.

Reproductive Toxicity

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

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

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

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

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

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

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

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) toxicity

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

Product data: No data available.

Substance data:

Name	Result
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	EC50 - Scenedesmus capricornutum - 9 mg/L - 48 h

Chronic (long-term) toxicity

Product data: No data available.

Substance data:

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 13 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Name	Result
Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	NOEC Daphnia magna: 0.3 mg/L (21 d)

12.2 Persistence and degradability

Product data: No data available.

Substance data: No data available.

12.3 Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

12.4 Mobility in soil

Product data: No data available.

Substance data: No data available.

12.5 Results of PBT and vPvB assessment

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

12.6 Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Relevant information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN 3077
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Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)


Initial preparation date: 06.15.2018

Page 14 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

UN proper shipping name	Environmentally Hazardous Substance, Solid, N.O.S., (Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran, Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol)
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran, Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN 3077
UN proper shipping name	Environmentally Hazardous Substance, Solid, N.O.S., (Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran, Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol)
UN transport hazard class(es)	9 
Packing group	III
Environmental hazards	Marine Pollutant Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran, Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol
Special precautions for user	None

SECTION 15: Regulatory information

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

European regulations

Inventory listing (EINECS):

25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	Listed
9003-36-5	Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	Listed
2425-79-8	1,4-bis(2,3 epoxypropoxy)butane	Listed
2530-83-8	(3-Glycidoxypropyl)trimethoxysilane	Listed
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica	Not Listed
7439-89-6	Iron	Listed
65997-17-3	Glass, oxide, chemicals	Listed
14807-96-6	Talc	Listed
1317-65-3	Limestone	Listed
1302-78-9	Bentonite	Listed

REACH SVHC candidate list: Not determined.

REACH SVHC Authorizations: Not determined.

REACH Restriction: Not determined.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 15 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

Water hazard class (WGK) (Product): Not determined.

Water hazard class (WGK) (Substance):

Ingredient Name	CAS	Class
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(chloromethyl)oxiran	25068-38-6	2
Formaldehyde, polymer with 2-(chloromethyl)oxirane and phenol	9003-36-5	2
1,4-bis(2,3 epoxypropoxy)butane	2425-79-8	1
(3-Glycidoxypropyl)trimethoxysilane	2530-83-8	2
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Non-hazardous to water.
Iron	7439-89-6	Non-hazardous to water.
Talc	14807-96-6	Non-hazardous to water.
Limestone	1317-65-3	Non-hazardous to water.

Other regulations

Germany MAK: 8-hour TWA: 0.3 mg/m³ (respirable fraction), 8-hour TWA: 4 mg/m³ (inhalable fraction)

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Indication of changes:

Not applicable.

Abbreviations and Acronyms: None

Classification procedure:

Classification according to Regulation (EC) No. 1272/2008 (CLP)	Method Used
Eye irritation, category 2A	Calculation method
Skin irritation, category 2	Calculation method
Skin sensitization, category 1	Calculation method
Chronic aquatic hazard, category 2	Calculation method

Summary of classification in section 3:

Skin Sens. 1; H317	Skin sensitization, category 1
Skin Irrit. 2 ; H315	Skin irritation, category 2
Eye Irrit. 2; H319	Eye irritation, category 2A
Aquatic Chronic 2; H411	Chronic aquatic hazard, category 2
Acute Tox. 4; H312	Acute toxicity (dermal), category 4
Acute Tox. 4; H332	Acute toxicity (inhalation), category 4
Carc. 1B; H350	Carcinogenicity, category 1B
Eye Dam. 1; H318	Serious eye damage, category 1

Summary of hazard statements in section 3:

H317	May cause an allergic skin reaction
H315	Causes skin irritation

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 16 of 16

Steel Reinforced Epoxy Resin - Twin Tube - Part A

H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects
H312	Harmful in contact with skin
H332	Harmful if inhaled
H350	May cause cancer
H318	Causes serious eye damage

Disclaimer:

This product has been classified in accordance with EC No. 1272/2008 (CLP) and EC No. 1907/2006 (REACH). The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

HMIS: 3-0-0

Initial preparation date: 06.15.2018

End of Safety Data Sheet

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 1 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

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

1.1 Product identifier

Product Name: Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Product code: 8265, 8265S, 8265H, 80165, 8280, 8281, 8272



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

Relevant identified uses: Not determined or not applicable.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer:

United States

J-B Weld Company, LLC
1130 COMO ST.
SULPHUR SPRINGS, TX 75482
903-885-7696
info@jbweld.com

1.4 Emergency telephone number:

United States

CHEMTREC

Transportation Emergencies (24 hour): 800-424-9300 or
703-527-3887

Poison Control Centers (24 hour): medical emergencies 800-222-1222

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture:

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

Serious eye damage, category 1

Skin corrosion, category 1C

Skin sensitization, category 1

Specific target organ toxicity - repeated exposure, category 2

Chronic aquatic hazard, category 3

Hazard-determining components of labeling:

Fatty acids, tall-oil, reaction products with tetraethylenepentamine

Copolymer of benzenamine and formaldehyde, hydrogenated

Benzyl Alcohol

1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines

Triethylenetetramine

2,4,6-tris(dimethylaminomethyl)phenol

Bis[(dimethylamino)methyl]phenol

2.2 Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H318 Causes serious eye damage.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 2 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P310 Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see supplemental first aid instructions on this label).

P363 Wash contaminated clothing before reuse

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P362+P364 Take off contaminated clothing and wash it before reuse.

P314 Get medical advice/attention if you feel unwell

P405 Store locked up.

P501 Dispose of contents and container as instructed in Section 13.

2.3 Other hazards: None known

SECTION 3: Composition/information on ingredients

3.1 Substance: Not applicable.

3.2 Mixture:

Identification	Name	Classification according to Regulation (EC) No. 1272/2008 (CLP)	Weight %
CAS number: 37244-96-5	Nepheline syenite	Not classified	37.14
CAS number: 68410-23-1	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	Skin Irrit. 2 ; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 2; H411	12.11
CAS number: 135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated	Acute Tox. 4; H302 Skin Sens. 1; H317 Skin Corr. 1C; H314 Stot RE 2; H373 Aquatic Chronic 3; H412	9.1
CAS number: 68953-36-6 EC number: 273-201-6	Fatty acids, tall-oil, reaction products with tetraethylenepentamine	Skin Sens. 1; H317 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 2; H411	6.65

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 3 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

CAS number: 14807-96-6 EC number: 238-877-9	Talc	Not classified	4.46
CAS number: 65997-17-3 EC number: 266-046-0	Glass, oxide, chemicals	Carc. 1B; H350	2
CAS number: 13463-67-7 EC number: 236-675-5	Titanium Dioxide	Not classified	1.4
CAS number: 90-72-2 EC number: 202-013-9	2,4,6-tris(dimethylaminomethyl)phenol	Acute Tox. 4; H302 Skin Irrit. 2 ; H315 Eye Irrit. 2; H319	1.34
CAS number: 1302-78-9 EC number: 215-108-5	Bentonite	Not classified	1.1
CAS number: 112-57-2 EC number: 203-986-2	1,2-Ethanediamine, N1-(2-aminoethyl)- N2-[2-[(2-aminoethyl)amino]ethyl]-	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Sens. 1; H317 Skin Corr. 1B; H314 Aquatic Chronic 2; H411	0.88
CAS number: 100-51-6 EC number: 202-859-9	Benzyl Alcohol	Acute Tox. 4; H302 Acute Tox. 4; H332	0.88
CAS number: 112-24-3 EC number: 203-950-6	Triethylenetetramine	Acute Tox. 4; H312 Skin Sens. 1; H317 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	0.64
CAS number: 67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica	Not classified	0.3
CAS number: 71074-89-0 EC number: 275-162-0	Bis[(dimethylamino)methyl]phenol	Skin Corr. 1B; H314	0.17

Additional information:

Fiberglass powder (CAS # 65997-17-3) is classified as a carcinogen in its inhalable form. Since the fiberglass powder in this product is not inhalable, the product itself is not classified as a carcinogen in the form presented.

Full Text of H and EUH statements: See section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Not determined or not available.

Following inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

Take precautions to ensure your own safety

Remove source of exposure or move person to fresh air and keep comfortable for breathing

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 4 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Immediately call a POISON CONTROL CENTER or seek medical attention
If breathing has stopped, trained personnel should begin rescue breathing
Avoid mouth-to-mouth contact by using a barrier device
If the heart has stopped, immediately start cardiopulmonary resuscitation (CPR)

Following skin contact:

Rinse affected area with soap and water
If symptoms develop or persist, seek medical attention
Avoid direct contact and wear chemical protective clothing, if necessary
Immediately take off all contaminated clothing
Gently blot or brush away excess product
Rinse skin with lukewarm, gently flowing water until medical aid is available
Immediately call a POISON CONTROL CENTER or seek medical attention
Wash contaminated clothing before re-use or discard

Following eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes
If symptoms develop or persist, seek medical attention
Avoid direct contact and wear chemical protective gloves, if necessary
Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open
Remove contact lenses, if present and easy to do so
Continue rinsing until medical aid is available
Immediately call a POISON CONTROL CENTER or seek medical attention

Following ingestion:

Rinse mouth thoroughly
Seek medical attention if irritation, discomfort, or vomiting persists
Immediately call a POISON CONTROL CENTER or seek medical attention
Do not induce vomiting and rinse mouth
If vomiting occurs naturally, lie on your side, in the recovery position
If breathing has stopped, trained personnel should begin rescue breathing
Avoid mouth-to-mouth contact by using a barrier device
If the heart has stopped, immediately start cardiopulmonary resuscitation (CPR)

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing media:

Not determined or not applicable.

5.2 Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 5 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Personal protection equipment:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

Special precautions:

Not determined or not applicable.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.
Ensure air handling systems are operational.
Wear protective eye wear, gloves and clothing.

6.2 Environmental precautions:

Should not be released into the environment.
Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing.
Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders).
Dispose of contents / container in accordance with local regulations.

6.4 Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Use only with adequate ventilation.
Avoid breathing mist or vapor.
Do not eat, drink, smoke or use personal products when handling chemical substances.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed.
Protect from freezing and physical damage.
Store in a cool, well-ventilated area.

7.3 Specific end use(s):

Not determined or not applicable.

SECTION 8: Exposure controls/personal protection



8.1 Control parameters

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Bulgaria	Benzyl Alcohol	100-51-6	TWA: 5.0 mg/m ³
	Glass, oxide, chemicals	65997-17-3	TWA: 6.0 mg/m ³ (inhalable fraction)
	Bentonite	1302-78-9	TWA: 6.0 mg/m ³ (inhalable fraction)

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 6 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Glass, oxide, chemicals	65997-17-3	TWA: 1.0 fibres/cm ³ (respirable fraction)
	Bentonite	1302-78-9	TWA: 3.0 mg/m ³ (respirable fraction)
	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ (Respirable dust)
	Talc	14807-96-6	TWA: 6.0 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	TWA: 3.0 mg/m ³ (respirable fraction)
Estonia	Triethylenetetramine	112-24-3	8-hour TWA: 1 ppm (6 mg/m ³)
	Triethylenetetramine	112-24-3	STEL: 12 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: TWA 5 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (total dust)
	Talc	14807-96-6	8-hour TWA: 5 mg/m ³ (fine dust)
	Talc	14807-96-6	8-hour TWA: 3 mg/m ³ (plastic)
	Talc	14807-96-6	8-hour TWA: 1 mg/m ³ (textile)
	Talc	14807-96-6	8-hour TWA: 5 mg/m ³ (organic dust, total dust)
Czech Republic	Benzyl Alcohol	100-51-6	8-hour TWA: 40 mg/m ³
	Benzyl Alcohol	100-51-6	Ceiling limit (NPK-P): 80 mg/m ³
	Bentonite	1302-78-9	8-hour TWA: 6.0 mg/m ³
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 5.0 mg/m ³ (glass laminate dusts)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1.0 fibers/cm ³ (respirable fibers)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 4 mg/m ³ (synthetic mineral fibers - all sizes)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1.0 fibers/cm ³ (synthetic mineral respirable fibers)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 0.3 fibers/cm ³ (ceramic respirable fibers)
	Talc	14807-96-6	8-hour TWA: 2.0 mg/m ³ (dust, respirable fraction, Fr ≤ 5%)
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (dust, respirable fraction, Fr > 5%)
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (dust, total concentration)
	Talc	14807-96-6	8-hour TWA: 5.0 mg/m ³ (polymeric material dust)
Lithuania	Triethylenetetramine	112-24-3	8-hour TWA: 6 mg/m ³ (1 ppm)
	Triethylenetetramine	112-24-3	15-minute STEL: 12 mg/m ³ (2 ppm)
	Benzyl Alcohol	100-51-6	8-hour TWA: 5 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: TWA 5 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (glass fiber)

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 7 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 0.2 fibers/cm ³ (synthetic inorganic, crystal fibers)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (synthetic inorganic, amorphous fibers)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	8-hour TWA: 1 mg/m ³ (respirable fraction)
Latvia	Benzyl Alcohol	100-51-6	8-hour TWA: 5 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 2 mg/m ³
	Talc	14807-96-6	8-hour TWA: 4 mg/m ³ (tuff, pumice, perlite)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (natural and synthetic)
	Talc	14807-96-6	8-hour TWA: 5 mg/m ³ (polymers)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (abrasive dusts)
	Talc	14807-96-6	8-hour TWA: 4 mg/m ³ (tal-like dust)
Poland	Triethylenetetramine	112-24-3	8-hour TWA (NDS): 1 mg/m ³
	Benzyl Alcohol	100-51-6	8-hour TWA (NDS): 240 mg/m ³
	Triethylenetetramine	112-24-3	15-minute STEL (NDSCh): 3 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: TWA (NDS) 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA(NDS): 2.0 mg/m ³ (inhalable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA (NDS): 1.0 fibers/cm ³ (respirable fibers)
	Talc	14807-96-6	8-hour TWA (NDS): 4 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	8-hour TWA (NDS): 1 mg/m ³ (respirable fraction)
Cyprus	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 10 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Talc	14807-96-6	8-hour TWA: 706 particles/cm ³
Finland	Benzyl Alcohol	100-51-6	8-hour limit: 10 ppm (45 mg/m ³)
	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour limit: 5 mg/m ³
	Talc	14807-96-6	15-minute limit: 2 ppm (inhalable)
	Talc	14807-96-6	15-minute limit: 1 ppm (respirable)
Slovakia	Bentonite	1302-78-9	8-hour TWA (NPEL): 6 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: TWA (NPEL) 5 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA (NPEL): 2 fibers/cm ³ (4 mg/m ³)

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 8 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Talc	14807-96-6	8-hour TWA (NPEL): 2 mg/m ³ (respirable fraction, Fr ≤ 5%)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (respirable fraction, Fr > 5 %)
Romania	Triethylenetetramine	112-24-3	8-hour TWA: 10 mg/m ³ (1.7 ppm)
	Triethylenetetramine	112-24-3	15-minute STEL: 20 mg/m ³ (3.3 ppm)
	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Titanium Dioxide	13463-67-7	OEL: STEL 15 mg/m ³ 15-min
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (glass wool fibers - respirable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (rock wool fibers - respirable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (slag wool fibers - respirable fraction)
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibers/cm ³ (special purpose glass fibers - respirable fraction)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (inhalable fraction)
Croatia	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ (Total dust) 15-min
	Titanium Dioxide	13463-67-7	OEL: TWA 4.0 mg/m ³ (Respirable dust) 15-min
	Talc	14807-96-6	Maximum (8 hr) allowable concentration: 1 mg/m ³ (respirable dust)
Sweden	Triethylenetetramine	112-24-3	Level Limit Value (NGV): 1 ppm (6 mg/m ³)
	Triethylenetetramine	112-24-3	Short Term Limit (KTV): 2 ppm (12 mg/m ³)
	Titanium Dioxide	13463-67-7	OEL: (NGV) 5.0 (Total dust) mg/m ³
	Glass, oxide, chemicals	65997-17-3	Level Limit Value (NGV): 1 fiber/mL
	Talc	14807-96-6	Level Limit Value (NGV): 2 mg/m ³ (total dust)
	Talc	14807-96-6	Level Limit Value (NGV): 1 mg/m ³ (respirable dust)
Hungary	Glass, oxide, chemicals	65997-17-3	8-Hour TWA (ÁK Value): 1.0 fibers/cm ³
	Talc	14807-96-6	8-hour TWA (ÁK Value): 2 mg/m ³ (respirable)
	Talc	14807-96-6	8-hour TWA (ÁK Value): 10 mg/m ³ (total, inhalable)
Austria	Titanium Dioxide	13463-67-7	OEL: TWA 5 mg/m ³
	Titanium Dioxide	13463-67-7	OEL: STEL 10 mg/m ³
Belgium	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 10 mg/m ³ (glass - fibers or dusts of)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 9 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	8-hour TWA: 3 mg/m ³ (respirable fraction)
Denmark	Titanium Dioxide	13463-67-7	OEL: TWA 6.0 mg/m ³
	Glass, oxide, chemicals	65997-17-3	TWA: 1 fibers/cm ³
France	Titanium Dioxide	13463-67-7	OEL: (VME) 10 mg/m ³
	Talc	14807-96-6	Time weighted average (VME): 10 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	Time weighted average (VME): 5 mg/m ³ (respirable fraction)
Slovenia	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 500000 fibers/m ³
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (Respirable fraction)
Greece	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ (Inhalable) 8-hr
	Titanium Dioxide	13463-67-7	OEL: TWA 5.0 mg/m ³ (Respirable dust) 8-hr
	Talc	14807-96-6	8-hour TWA: 10 mg/m ³ (inhalable)
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (respirable)
Ireland	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ (Inhalable dust) 8-hr
	Titanium Dioxide	13463-67-7	OEL: TWA 4.0 mg/m ³ (Respirable dust) 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour OEL (TWA): 2 fibers/cm ³ of air (5 mg/m ³)
	Talc	14807-96-6	8-hour OEL (TWA): 10 mg/m ³ (total inhalable dust)
	Talc	14807-96-6	8-hour OEL (TWA): 0.8 mg/m ³ (respirable fraction)
Italy	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour TWA: 1 fibres/cm ³
	Talc	14807-96-6	8-hour TWA: 2 mg/m ³ (respirable fraction)
Portugal	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	NP 1796-2007 8-hour exposure limit: 1 fibres/cm ³
	Talc	14807-96-6	NP 1796-2007 8-hour exposure limit: 2 mg/m ³ (respirable fraction)
Netherlands	Glass, oxide, chemicals	65997-17-3	Binding 8-hour TWA: 0.5 fibre/cm ³
	Talc	14807-96-6	8-hour TWA: 0.25 mg/m ³ (respirable)
Spain	Titanium Dioxide	13463-67-7	OEL: (VLA_ED) 10.0 mg/m ³ 8-hr
	Glass, oxide, chemicals	65997-17-3	8-hour daily exposure limit (VLA_ED): 0.5 fibres/cm ³

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 10 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Talc	14807-96-6	8-hour daily exposure limit (VLA_ED): 2 mg/m ³ (respirable fraction)
United Kingdom	Titanium Dioxide	13463-67-7	OEL: TWA 10.0 mg/m ³ (Total dust)
	Titanium Dioxide	13463-67-7	OEL: TWA 4.0 mg/m ³ (Respirable dust)
	Glass, oxide, chemicals	65997-17-3	TWA: 1 fibre/mL (5 mg/m ³)
	Talc	14807-96-6	TWA: 1 mg/m ³ (respirable dust)
Germany	Talc	14807-96-6	AGW Limit value: 1.25 mg/m ³ (respirable fraction)
	Talc	14807-96-6	AGW limit value: 10 mg/m ³ (inhalable fraction)
	Talc	14807-96-6	AGW Short term (15 min) exposure limit: 20 mg/m ³ (inhalable fraction)

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Not determined or not applicable.

Predicted No Effect Concentration (PNEC):

Not determined or not applicable.

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

Environmental exposure controls:

Select controls based on a risk assessment of local conditions.

See section 6 for information on accidental release measures.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 11 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	White liquid
Odor	Amine-like
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Closed cup: >93.3 °C (>199.9 °F) [Setaflash.] [Product does not sustain combustion.]
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	1.955
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	>220°C (>392°F)
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

9.2 Other information

VOC Content	<1%
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SECTION 10: Stability and reactivity

10.1 Reactivity:

Does not react under normal conditions of use and storage.

10.2 Chemical stability:

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions:

None under normal conditions of use and storage.

10.4 Conditions to avoid:

None known.

10.5 Incompatible materials:

None known.

10.6 Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 12 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

11.1 Information on toxicological effects

Acute toxicity

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

Product data: No data available.

Substance data:

Name	Route	Result
Benzyl Alcohol	inhalation	LC50 Rat: 4.178 mg/L (4 hr)
	oral	LD50 Rabbit: 1,040 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	oral	LD50 - Rat - 1,200 mg/kg

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data:

No data available.

Substance data:

Name	Result
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	Causes skin irritation.
1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	Causes severe skin burns and eye damage.
Copolymer of benzenamine and formaldehyde, hydrogenated	Causes severe skin burns and eye damage.
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	Causes skin irritation.
2,4,6-tris(dimethylaminomethyl)phenol	Causes skin irritation.
Triethylenetetramine	Causes severe skin burns and eye damage.
Bis[(dimethylamino)methyl]phenol	Causes severe skin burns and eye damage.

Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data:

No data available.

Substance data:

Name	Result
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	Causes serious eye irritation.
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	Causes serious eye damage.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 13 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Name	Result
2,4,6-tris(dimethylaminomethyl)phenol	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction

Product data:

No data available.

Substance data:

Name	Result
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	May cause an allergic skin reaction.
Copolymer of benzenamine and formaldehyde, hydrogenated	May cause an allergic skin reaction.
1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	May cause an allergic skin reaction.
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	May cause an allergic skin reaction.
Triethylenetetramine	May cause an allergic skin reaction.

Carcinogenicity

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

Product data: No data available.

Substance data:

Name	Species	Result
Glass, oxide, chemicals	Not applicable	May cause cancer via inhalation.
Titanium Dioxide	Not applicable.	Airborne, unbound particles of respirable size are known to cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Glass, oxide, chemicals	Group 2B
Talc	Group 3 - Not classifiable as to its carcinogenicity to humans
Titanium Dioxide	Group 2B

National Toxicology Program (NTP):

Name	Classification
Glass, oxide, chemicals	Reasonably anticipated to be human carcinogens

Germ cell mutagenicity

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

Product data: No data available.

Substance data: No data available.

Reproductive Toxicity

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

Product data:

No data available.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 14 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Substance data: No data available.

Specific target organ toxicity (single exposure)

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

Product data:

No data available.

Substance data:

Name	Result
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Assessment: May cause damage to organs through prolonged or repeated exposure

Product data:

No data available.

Substance data:

Name	Result
Copolymer of benzenamine and formaldehyde, hydrogenated	May cause damage to kidneys through prolonged or repeated oral exposure.

Aspiration toxicity

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

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) toxicity

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

Product data: No data available.

Substance data:

Name	Result
Triethylenetetramine	LC50 - Daphnia magna (Water flea) - 33.9 mg/L - 48 h

Chronic (long-term) toxicity

Product data: No data available.

Substance data:

Name	Result
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	LC50 - Danio rerio - 7.07 mg/L - 96 hr
	EC50 - Daphnia magna - 5.18 mg/L - 48 hr
	ErC50 - Pseudokirchneriella subcapitata - 4.11 mg/L - 72 hr

12.2 Persistence and degradability

Product data: No data available.

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 15 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Substance data: No data available.

12.3 Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

12.4 Mobility in soil

Product data: No data available.

Substance data: No data available.

12.5 Results of PBT and vPvB assessment

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

12.6 Other adverse effects: No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Relevant information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information


International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN 1760
UN proper shipping name	Corrosive Liquids, N.O.S., (Copolymer of benzenamine and formaldehyde, hydrogenated, Triethylenetetramine)
UN transport hazard class(es)	8 
Packing group	II
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)


Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 16 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

UN number	UN 1760
UN proper shipping name	Corrosive Liquids, N.O.S., (Copolymer of benzenamine and formaldehyde, hydrogenated, Triethylenetetramine)
UN transport hazard class(es)	8 
Packing group	II
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

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

European regulations

Inventory listing (EINECS):

68953-36-6	Fatty acids, tall-oil, reaction products with tetraethylenepentamine	Listed
135108-88-2	Copolymer of benzenamine and formaldehyde, hydrogenated	Not Listed
100-51-6	Benzyl Alcohol	Listed
112-57-2	1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	Listed
68410-23-1	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	Not Listed
112-24-3	Triethylenetetramine	Listed
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	Listed
71074-89-0	Bis[(dimethylamino)methyl]phenol	Listed
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica	Not Listed
65997-17-3	Glass, oxide, chemicals	Listed
14807-96-6	Talc	Listed
37244-96-5	Nepheline syenite	Not Listed
13463-67-7	Titanium Dioxide	Listed
1302-78-9	Bentonite	Listed

REACH SVHC candidate list: Not determined.

REACH SVHC Authorizations: Not determined.

REACH Restriction: Not determined.

Water hazard class (WGK) (Product): Not determined.

Water hazard class (WGK) (Substance):

Ingredient Name	CAS	Class
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	2
Benzyl Alcohol	100-51-6	1
1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	112-57-2	2

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 17 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

Ingredient Name	CAS	Class
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	2
Triethylenetetramine	112-24-3	2
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	1
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	Non-hazardous to water.
Talc	14807-96-6	Non-hazardous to water.
Titanium Dioxide	13463-67-7	Non-hazardous to water.

Other regulations

Germany MAK: 8-hour TWA: 5 ppm (22 mg/m³), 8-hour TWA: 0.3 mg/m³ (respirable fraction), TWA 8-hr: 0.3 mg/m³ (Respirable fraction); 4 mg/m³ (Inhalable fraction), 8-hour TWA: 4 mg/m³ (inhalable fraction)

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Indication of changes:

Not applicable.

Abbreviations and Acronyms: None

Classification procedure:

Classification according to Regulation (EC) No. 1272/2008 (CLP)	Method Used
Serious eye damage, category 1	Calculation method
Skin corrosion, category 1C	Calculation method
Skin sensitization, category 1	Calculation method
Specific target organ toxicity - repeated exposure, category 2	Calculation method
Chronic aquatic hazard, category 3	Calculation method

Summary of classification in section 3:

Skin Irrit. 2 ; H315	Skin irritation, category 2
Eye Dam. 1; H318	Serious eye damage, category 1
Skin Sens. 1; H317	Skin sensitization, category 1
Aquatic Chronic 2; H411	Chronic aquatic hazard, category 2
Acute Tox. 4; H302	Acute toxicity (oral), category 4
Skin Corr. 1C; H314	Skin corrosion, category 1C
Stot RE 2; H373	Specific target organ toxicity - repeated exposure, category 2
Aquatic Chronic 3; H412	Chronic aquatic hazard, category 3
Skin Corr. 1B; H314	Skin corrosion, category 1B
Carc. 1B; H350	Carcinogenicity, category 1B
Eye Irrit. 2; H319	Eye irritation, category 2A
Acute Tox. 4; H312	Acute toxicity (dermal), category 4
Acute Tox. 4; H332	Acute toxicity (inhalation), category 4

Summary of hazard statements in section 3:

H315	Causes skin irritation
H318	Causes serious eye damage

Safety Data Sheet

According to Regulation (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH)

Initial preparation date: 06.15.2018

Page 18 of 18

Steel Reinforced Epoxy Hardener - Slow Cure - Twin Tube - Part B

H317	May cause an allergic skin reaction
H411	Toxic to aquatic life with long lasting effects
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects
H350	May cause cancer
H319	Causes serious eye irritation
H312	Harmful in contact with skin
H332	Harmful if inhaled

Disclaimer:

This product has been classified in accordance with EC No. 1272/2008 (CLP) and EC No. 1907/2006 (REACH). The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

Initial preparation date: 06.15.2018

End of Safety Data Sheet