SAFETY DATA SHEET

WEST SYSTEM SIX 10 HARDENER

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name WEST SYSTEM SIX 10 HARDENER

Product number 610B

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

Identified uses Hardener.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Suter Kunststoffe AG
Aefligenstrasse 3
CH - 3312 Fraubrunnen

Tel: +41 (0)31 763 60 60
Fax: +41 (0)31 763 60 61
info@swiss-composite.ch

1.4. Emergency telephone number

Emergency telephone 145 Tox Info Schweiz

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards
Not Classified

Health hazards
Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards
Aquatic Chronic 3 - H412

Classification (67/548/EEC or 1999/45/EC)
C; R34. R52/53, R43

Human health
Corrosive to skin and eyes. The product contains a sensitising substance. See Section 11 for additional information on health hazards.

Environmental
The product contains a substance which may have hazardous effects on the environment.

2.2. Label elements

Pictogram

WEST SYSTEM SIX 10 HARDENER


Signal word Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.
P273 Avoid release to the environment.
P280 Wear protective gloves, eye and face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P501 Dispose of contents/container in accordance with national regulations.

Contains POLYOXYPROPYLENEAMINE , BUTADIENE-ACRYLONITRILE CO-POLYMER, FORMALDEHYDE POLYMER WITH PHENOL & TETA, PHENALKAMINE

Supplementary precautionary statements

P261 Avoid breathing vapour/spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

BENZYL ALCOHOL **10-30%**

CAS number: 100-51-6 **EC number:** 202-859-9 **REACH registration number:** 01-2119492630-38-0000

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 4 - H332	Xn;R20/22

POLYOXYPROPYLENEAMINE **10-30%**

CAS number: 9046-10-0 **EC number:** 618-561-0

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1B - H314 Eye Dam. 1 - H318 Asp. Tox. 1 - H304 Aquatic Chronic 3 - H412	Xn;R65. C;R34. Xi;R41. R52/53.

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BUTADIENE-ACRYLONITRILE CO-POLYMER **10-30%**

CAS number: 68683-29-4 **EC number:** —

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Sens. 1 - H317	R43.

FORMALDEHYDE POLYMER WITH PHENOL & TETA **5-10%**

CAS number: 32610-77-8 **EC number:** 500-083-8

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	Xn;R21/22. C;R34. R43,R52/53.

PHENALKAMINE **5-10%**

CAS number: 868765-93-9 **EC number:** —

Classification	Classification (67/548/EEC or 1999/45/EC)
Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335	Xi;R36/37. R43.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA **1-5%**

CAS number: 1101788-77-5 **EC number:** —

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317	C;R34. R43.

2-HYDROXYETHYL ETHERS **1-5%**

CAS number: 232268-65-4 **EC number:** —

Classification	Classification (67/548/EEC or 1999/45/EC)
Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335	Xi;R36/37. R43.

EPOXY/DETA ADDUCT **1-5%**

CAS number: 31326-29-1 **EC number:** 500-072-8

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	C;R34. Xi;R36/37/38.

WEST SYSTEM SIX 10 HARDENER

DIETHYLENETRIAMINE **1-5%**

CAS number: 111-40-0 **EC number:** 203-865-4

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317	C;R34 Xn;R21/22 R43

TRIETHYLENETETRAMINE **1-5%**

CAS number: 112-24-3 **EC number:** 203-950-6

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	C;R34 Xn;R21 R43 R52/53

2-PIPERAZIN-1-YLETHYLAMINE **<1%**

CAS number: 140-31-8 **EC number:** 205-411-0 **REACH registration number:** 01-2119471486-30

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 3 - H311 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	C;R34 Xn;R21/22 R43 R52/53

PHENOL **<1%**

CAS number: 108-95-2 **EC number:** 203-632-7

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Muta. 2 - H341 STOT RE 2 - H373	Muta. Cat. 3;R68 T;R23/24/25 C;R34 Xn;R48/20/21/22

WEST SYSTEM SIX 10 HARDENER

M-PHENYLENEBIS(METHYLAMINE)	<1%
CAS number: 1477-55-0 **EC number:** 216-032-5	

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	Xn;R20/22. C;R34. R43,R52/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician.

Inhalation

Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Ingestion

Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Skin contact

It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Eye contact

May cause permanent damage if eye is not immediately irrigated. Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists after washing.

Protection of first aiders

First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

General information

See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.

Ingestion

May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. Severe stomach pain. Nausea, vomiting.

Skin contact

Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur. May cause sensitisation by skin contact.

Eye contact

Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes.

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

Notes for the doctor

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards

None known.

Hazardous combustion products

Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours. Carbon dioxide (CO_2). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting

Avoid breathing fire gases or vapours. Ventilate closed spaces before entering them. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Follow precautions for safe handling described in this safety data sheet. Wear protective clothing as described in Section 8 of this safety data sheet. Take care as floors and other surfaces may become slippery. Do not touch or walk into spilled material. Provide adequate ventilation. Avoid inhalation of vapours. Avoid contact with skin and eyes. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions

The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. This product is corrosive. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a

spillage. Dangerous for the environment. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid contact with skin and eyes. Avoid inhalation of vapours. Provide adequate ventilation. Do not handle until all safety precautions have been read and understood.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Remove contaminated clothing and protective equipment before entering eating areas. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Protect from light. Store away from the following materials: Acids. Oxidising materials.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

DIETHYLENETRIAMINE

Long-term exposure limit (8-hour TWA): WEL 1 ppm 4.3 mg/m3
Sk

PHENOL

Long-term exposure limit (8-hour TWA): WEL 2 ppm 7.8 mg/m3
Short-term exposure limit (15-minute): WEL 4 ppm 16 mg/m3
Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Provide adequate ventilation. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Wear chemical splash goggles. Personal protective equipment for eye and face protection

should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly.

Environmental exposure controls

Avoid discharge to the aquatic environment. Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Viscous liquid.

Colour

Colourless.

Odour

Ammonia.

Odour threshold

Not determined.

pH

Not determined.

Melting point

Not determined.

Initial boiling point and range

>250°C @ 760 mm Hg

Flash point

>93°C CC (Closed cup).

Evaporation rate

Not determined.

Evaporation factor

Not determined.

Upper/lower flammability or explosive limits

Not determined.

Vapour pressure

<1 mm Hg @ °C

Vapour density

>1

WEST SYSTEM SIX 10 HARDENER

Relative density

1.04 @ 25°C

Bulk density

Not determined.

Solubility(ies)

Slightly soluble in water.

Partition coefficient

Not determined.

Auto-ignition temperature

Not determined.

Decomposition Temperature

Not determined.

Viscosity

>130,000 mPa s @ 25°C

Explosive properties

Not determined.

Oxidising properties

Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information

Not known.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under the prescribed storage conditions.

10.2. Chemical stability

Stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid

Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Based on available data the classification criteria are not met.

ATE oral (mg/kg)

2,948.52545265

Acute toxicity - dermal

Based on available data the classification criteria are not met.

WEST SYSTEM SIX 10 HARDENER

ATE dermal (mg/kg)

7838.8806951

Acute toxicity - inhalation

Based on available data the classification criteria are not met.

ATE inhalation (vapours mg/l)

53.8099657

Skin corrosion/irritation

Animal data

Skin Corr. 1B - H314 Causes burns.

Serious eye damage/irritation

Eye Dam. 1 - H318 Causes serious eye damage.

Respiratory sensitisation

Based on available data the classification criteria are not met.

Skin sensitisation

Skin Sens. 1 - H317 May cause skin sensitisation or allergic reactions in sensitive individuals.

Germ cell mutagenicity

Genotoxicity - in vitro

Based on available data the classification criteria are not met.

Genotoxicity - in vivo

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility

Based on available data the classification criteria are not met.

Reproductive toxicity - development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure

Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

Inhalation

Corrosive to the respiratory tract. Symptoms following overexposure to vapour may include the following:

Ingestion

May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.

Skin contact

Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.

Eye contact

Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

WEST SYSTEM SIX 10 HARDENER

Route of entry

Ingestion Inhalation Skin and/or eye contact

Toxicological information on ingredients.

BENZYL ALCOHOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

1,620.0

Species

Rat

REACH dossier information. Harmful if swallowed.

ATE oral (mg/kg)

1,620.0

Acute toxicity - dermal

Data lacking.

Acute toxicity - inhalation

Harmful if inhaled.

ATE inhalation (vapours mg/l)

11.0

Skin corrosion/irritation

Animal data

Dose: 0.5ml, 4 hr, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

Serious eye damage/irritation

Based on available data the classification criteria are not met.

Respiratory sensitisation

No information available.

Skin sensitisation

Draize test: - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro

Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Genotoxicity - in vivo

Chromosome aberration: Negative. REACH dossier information. This substance has no evidence of mutagenic properties.

Carcinogenicity

There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility

Data lacking.

Reproductive toxicity - development

Developmental toxicity: - NOAEL: 550 mg/kg/day, Oral, Mouse REACH dossier information. This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

WEST SYSTEM SIX 10 HARDENER

STOT - repeated exposure

NOAEL 400 mg/kg, Oral, Rat REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Based on available data the classification criteria are not met.

POLYOXYPROPYLENEAMINE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

2,885.3

Species

Rat

REACH dossier information. Based on available data the classification criteria are not met.

ATE oral (mg/kg)

2,885.3

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)

2979.7

Species

Rabbit

REACH dossier information. Based on available data the classification criteria are not met.

ATE dermal (mg/kg)

2979.7

Acute toxicity - inhalation

Data lacking.

Skin corrosion/irritation

Animal data

Dose: 0.5ml, 4 hr, Rabbit Erythema/eschar score: Moderate to severe erythema (3). REACH dossier information. Corrosive to skin.

Serious eye damage/irritation

Corrosive to skin. Corrosivity to eyes is assumed. No testing is needed.

Respiratory sensitisation

No information available.

Skin sensitisation

No information available.

Germ cell mutagenicity

Genotoxicity - in vitro

Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Genotoxicity - in vivo

Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

Data lacking.

Reproductive toxicity

Reproductive toxicity - fertility

Screening: - NOAEL 30 mg/kg/day, Dermal, Rat P REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity - development

WEST SYSTEM SIX 10 HARDENER

Data lacking.

Specific target organ toxicity - single exposure

STOT - single exposure

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

NOAEL 250 mg/kg, Oral, Rat REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

BUTADIENE-ACRYLONITRILE CO-POLYMER

Toxicological effects

No information available.

FORMALDEHYDE POLYMER WITH PHENOL & TETA

Toxicological effects

No information available.

PHENALKAMINE

Toxicological effects

No information available.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA

Toxicological effects

No information available.

2-HYDROXYETHYL ETHERS

Toxicological effects

No information available.

EPOXY/DETA ADDUCT

Toxicological effects

No information available.

DIETHYLENETRIAMINE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)

1,553.0

Species

Rat

REACH dossier information. Harmful if swallowed.

ATE oral (mg/kg)

1,553.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)

1052.0

Species

Rabbit

REACH dossier information. Harmful in contact with skin.

ATE dermal (mg/kg)

1052.0

WEST SYSTEM SIX 10 HARDENER

Acute toxicity - inhalation

Data lacking.

Skin corrosion/irritation

Animal data

Corrosive to skin.

Serious eye damage/irritation

Corrosive to skin. Corrosivity to eyes is assumed. No testing is needed.

Respiratory sensitisation

Mouse: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

Skin sensitisation

Guinea pig maximization test (GPMT) - Guinea pig: Sensitising. REACH dossier information. May cause sensitisation by skin contact.

Germ cell mutagenicity

Genotoxicity - in vitro

Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Genotoxicity - in vivo

Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

NOAEL > 56.3 mg/kg, Dermal, Mouse Estimated value. REACH dossier information. There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility

One-generation study - NOAEL 100 mg/kg/day, Oral, Rat P REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity - development

Developmental toxicity: - NOAEL: 30 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

NOAEL 70 mg/kg, Oral, Rat REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Based on available data the classification criteria are not met.

TRIETHYLENETETRAMINE

Toxicological effects

No information available.

Acute toxicity - dermal

ATE dermal (mg/kg)

1100

SECTION 12: Ecological Information

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

WEST SYSTEM SIX 10 HARDENER

Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

BENZYL ALCOHOL

Acute toxicity - fish

LC_{50}, 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information.

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: 230 mg/l, Daphnia magna REACH dossier information.

Acute toxicity - aquatic plants

EC_{50}, 72 hours: 770 mg/l, Freshwater algae REACH dossier information.

Acute toxicity - microorganisms

EC_{50}, 48 hours: 2100 mg/l, Activated sludge REACH dossier information.

POLYOXYPROPYLENEAMINE

Acute toxicity - fish

LC50, 96 hours: > 15 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.

Acute toxicity - aquatic invertebrates

EC_{50}, 48 hours: 80 mg/l, Daphnia magna REACH dossier information.

Acute toxicity - aquatic plants

EC_{50}, 72 hours: 15 mg/l, Freshwater algae REACH dossier information.

Acute toxicity - microorganisms

EC_{50}, 3 hours: 750 mg/l, Activated sludge REACH dossier information.

BUTADIENE-ACRYLONITRILE CO-POLYMER

There are no data on the ecotoxicity of this product.

FORMALDEHYDE POLYMER WITH PHENOL & TETA

There are no data on the ecotoxicity of this product.

PHENALKAMINE

There are no data on the ecotoxicity of this product.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA

There are no data on the ecotoxicity of this product.

2-HYDROXYETHYL ETHERS

There are no data on the ecotoxicity of this product.

EPOXY/DETA ADDUCT

There are no data on the ecotoxicity of this product.

DIETHYLENETRIAMINE

Acute toxicity - fish

LC_{50}, 96 hours: 430 mg/l, Poecilia reticulata (Guppy) REACH dossier information.

Acute toxicity - aquatic plants

EC_{50}, 72 hours: 1164 mg/l, Selenastrum capricornutum REACH dossier information.

Acute toxicity - microorganisms

EC_{50}, 3 hours: 32.7 mg/l, Activated sludge REACH dossier information.

TRIETHYLENETETRAMINE

There are no data on the ecotoxicity of this product.

12.2. Persistence and degradability

Persistence and degradability

There are no data on the degradability of this product.

WEST SYSTEM SIX 10 HARDENER

Ecological information on ingredients.

BENZYL ALCOHOL

Biodegradation

- Degradation (%) 92: 14 days REACH dossier information. The substance is readily biodegradable.

POLYOXYPROPYLENEAMINE

Stability (hydrolysis)

pH7 - Half-life : 1 year @ 25°C REACH dossier information.

Biodegradation

water - Degradation (%) 0: 28 days REACH dossier information. No biodegradation observed under test conditions.

BUTADIENE-ACRYLONITRILE CO-POLYMER

Persistence and degradability

There are no data on the degradability of this product.

FORMALDEHYDE POLYMER WITH PHENOL & TETA

Persistence and degradability

There are no data on the degradability of this product.

PHENALKAMINE

Persistence and degradability

There are no data on the degradability of this product.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA

Persistence and degradability

There are no data on the degradability of this product.

2-HYDROXYETHYL ETHERS

Persistence and degradability

There are no data on the degradability of this product.

EPOXY/DETA ADDUCT

Persistence and degradability

There are no data on the degradability of this product.

DIETHYLENETRIAMINE

Phototransformation

Air. - DT_{50} : 2.6 hours Estimated value. REACH dossier information.

Biodegradation

water - Degradation (%) 87: 21 days REACH dossier information. The substance is readily biodegradable.

TRIETHYLENETETRAMINE

Persistence and degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

No data available on bioaccumulation.

Partition coefficient

Not determined.

WEST SYSTEM SIX 10 HARDENER

Ecological information on ingredients.

BENZYL ALCOHOL

No data available on bioaccumulation.

Partition coefficient

log Pow: 1.1 REACH dossier information.

POLYOXYPROPYLENEAMINE

The product is not bioaccumulating.

Partition coefficient

log Pow: 1.34 REACH dossier information.

BUTADIENE-ACRYLONITRILE CO-POLYMER

No data available on bioaccumulation.

FORMALDEHYDE POLYMER WITH PHENOL & TETA

No data available on bioaccumulation.

PHENALKAMINE

No data available on bioaccumulation.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA

No data available on bioaccumulation.

2-HYDROXYETHYL ETHERS

No data available on bioaccumulation.

EPOXY/DETA ADDUCT

No data available on bioaccumulation.

DIETHYLENETRIAMINE

The product is not bioaccumulating. BCF: < 1.7, Cyprinus carpio (Common carp) REACH dossier information.

Partition coefficient

log Pow: -5.58 Estimated value. REACH dossier information.

TRIETHYLENETETRAMINE

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility

No information available.

WEST SYSTEM SIX 10 HARDENER

Ecological information on ingredients.

BENZYL ALCOHOL

Mobility

The product is soluble in water.

POLYOXYPROPYLENEAMINE

Mobility

The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

BUTADIENE-ACRYLONITRILE CO-POLYMER

Mobility

No information available.

FORMALDEHYDE POLYMER WITH PHENOL & TETA

Mobility

No information available.

PHENALKAMINE

Mobility

No information available.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA

Mobility

No information available.

2-HYDROXYETHYL ETHERS

Mobility

No information available.

EPOXY/DETA ADDUCT

Mobility

No information available.

DIETHYLENETRIAMINE

Mobility

The product is soluble in water.

Adsorption/desorption coefficient

Soil - log Koc: < 4.6 @ 25°C REACH dossier information.

TRIETHYLENETETRAMINE

Mobility

No information available.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

WEST SYSTEM SIX 10 HARDENER

Ecological information on ingredients.

BENZYL ALCOHOL

This substance is not classified as PBT or vPvB according to current EU criteria.

POLYOXYPROPYLENEAMINE

This substance is not classified as PBT or vPvB according to current EU criteria.

BUTADIENE-ACRYLONITRILE CO-POLYMER

This substance is not classified as PBT or vPvB according to current EU criteria.

FORMALDEHYDE POLYMER WITH PHENOL & TETA

This substance is not classified as PBT or vPvB according to current EU criteria.

PHENALKAMINE

This substance is not classified as PBT or vPvB according to current EU criteria.

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA

This substance is not classified as PBT or vPvB according to current EU criteria.

2-HYDROXYETHYL ETHERS

This substance is not classified as PBT or vPvB according to current EU criteria.

EPOXY/DETA ADDUCT

This substance is not classified as PBT or vPvB according to current EU criteria.

DIETHYLENETRIAMINE

This substance is not classified as PBT or vPvB according to current EU criteria.

TRIETHYLENETETRAMINE

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

None known.

Ecological information on ingredients.

BENZYL ALCOHOL

None known.

POLYOXYPROPYLENEAMINE

None known.

DIETHYLENETRIAMINE

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods

Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Do not discharge into drains or watercourses or onto the ground.

WEST SYSTEM SIX 10 HARDENER

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	2735
UN No. (IMDG)	2735
UN No. (ICAO)	2735
UN No. (ADN)	2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEAMINE, PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA)
Proper shipping name (IMDG)	AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEAMINE, PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA)
Proper shipping name (ICAO)	AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEAMINE, PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA)
Proper shipping name (ADN)	AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEAMINE, PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL] REACTION PRODUCTS WITH TETA)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID subsidiary risk	
ADR/RID classification code	C7
ADR/RID label	8
IMDG class	8
IMDG subsidiary risk	
ICAO class/division	8
ICAO subsidiary risk	
ADN class	8

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80

WEST SYSTEM SIX 10 HARDENER

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

National regulations

Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.

EU legislation

Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification procedures according to Regulation (EC) 1272/2008

Skin Corr. 1B - H314, Eye Dam. 1 - H318, Skin Sens. 1 - H317, Aquatic Chronic 3 - H412: Calculation method.

Revision date 06/01/2015

Supersedes date 30/09/2013

SDS number 10624

Risk phrases in full

R20/22 Harmful by inhalation and if swallowed.
R21 Harmful in contact with skin.
R21/22 Harmful in contact with skin and if swallowed.
R22 Harmful if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R36/37 Irritating to eyes and respiratory system.
R36/37/38 Irritating to eyes, respiratory system and skin.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R68 Possible risk of irreversible effects.

Hazard statements in full

WEST SYSTEM SIX 10 HARDENER

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.