

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.07.2014

Version number 3

Revision: 24.07.2014

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

· 1.1 Product identifier

· Trade name: TREMCO SF404 B

· MSDS code: W-T-SF404B

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

No further relevant information available.

· Application of the substance / the mixture

Epoxy curing agent

Fire retarding agent

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

tremco illbruck Coatings Ltd

Coupland Road, Hindley Green, Wigan, WN2 4HT

Tel: +44 (0) 1942251400, Fax: +44 (0) 1942251410

msds@tremco-illbruck.com

· Further information obtainable from:

tremco illbruck Ltd

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www.tremco-illbruck.co.uk, uk.info@tremco-illbruck.com

· 1.4 Emergency telephone number:

During office hours tel.: +44 (0) 1942251400. At all other times please contact your national poisoning centre.

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R38-41: Irritating to skin. Risk of serious damage to eyes.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07 GHS09

- **Signal word** Danger
- **Contains:**
3,6,9-triazaundecamethylenediamine
Fatty acids, tall-oil, reaction products with tetraethylenepentamine
2,4,6-tris(dimethylaminomethyl)phenol
epoxy resin (number average MW <700)
- **Hazard statements**
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.
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.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P310 Immediately call a doctor.
- **Supplemental information:**
Contains epoxy constituents. May produce an allergic reaction.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with non-hazardous additions.
- **Dangerous components:**

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CAS: 68953-36-6 EINECS: 273-201-6	Fatty acids, tall-oil, reaction products with tetraethylenepentamine Xi R41; Xi R43; N R51/53 Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Sens. 1, H317	10- <20%
CAS: 112-57-2 EINECS: 203-986-2	3,6,9-triazaundecamethylenediamine C R34; Xn R21/22; Xi R43; N R51/53 Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	5- <10%
CAS: 40216-08-8	epoxy resin (number average MW <700) Xi R36/38; Xi R43; N R51/53 Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	1- <5%
CAS: 90-72-2 EINECS: 202-013-9 Reg.nr.: 01-2119560597-27-xxxx	2,4,6-tris(dimethylaminomethyl)phenol Xn R22; Xi R36/38 Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1B, H317	1- <5%
CAS: 1760-24-3 EINECS: 217-164-6	N-(3-(trimethoxysilyl)propyl)ethylenediamine Xn R20; Xi R41; Xi R43; N R51/53 Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H332; Skin Sens. 1, H317	1- <5%
	formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol Xn R22; N R50/53 Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	0.1- <1%
CAS: 9072-62-2	polypropylene glycol diglycidyl ether Xi R36/38; Xi R43 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	0.1- <1%

• **Additional information:**

While curing the following substances are formed and released by a reaction with atmospheric humidity:

Not applicable.

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

• **4.1 Description of first aid measures**

• **After inhalation:** Supply fresh air; consult doctor in case of complaints.

• **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

• **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

• **After swallowing:** Do not induce vomiting; call for medical help immediately.

• **4.2 Most important symptoms and effects, both acute and delayed**

Causes severe skin burns and eye damage.

Allergic reactions

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- **Information for doctor:** No further relevant information available.
- **Hazards** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
- **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
The usual precautionary measures are to be adhered to when handling chemicals.
Avoid contact with the eyes and skin.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in unopened original receptacles.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Protect from heat and direct sunlight.

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- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**
Nitrile rubber, NBR
PVC or PE gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

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SECTION 9: Physical and chemical properties· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form: Pasty

Colour: Blue

· **Odour:** Fish-like· **Boiling point/Boiling range:** Undetermined.· **Flash point:** > 100 °C· **Danger of explosion:** Product does not present an explosion hazard.· **Density at 20 °C:** 1.62 g/cm³· **Solubility in / Miscibility with water:** Slightly soluble.· **Solvent content:**

VOC (EC) GEV-EMICODE EC1

· **9.2 Other information** No further relevant information available.**SECTION 10: Stability and reactivity**· **10.1 Reactivity** Stable· **10.2 Chemical stability**· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents.· **10.4 Conditions to avoid** Water / moisture.· **10.5 Incompatible materials:** No further relevant information available.· **10.6 Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

Nitrogen oxides

Corrosive gases/vapours

SECTION 11: Toxicological information· **11.1 Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values relevant for classification:****112-57-2 3,6,9-triazaundecamethylenediamine**

Dermal LD50 660 mg/kg (rabbit)

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

Oral LD50 >2000 mg/kg (rat) (OECD 401)

Dermal LD50 >2000 mg/kg (rat)

Inhalative LC50/4 h 1.49 - 2.44 mg/L (unknown)

· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.

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- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Causes severe skin burns and eye damage.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

EC50/48 h	81 mg/L (daphnia magna)
EC50/72 h	126 mg/L (scenedesmus subspicatus)
EC50/96 h	8.8 mg/L (pseudokirchneriella subcapit.)
LC0/96 h	344 mg/L (brachydanio rerio)
LC50/96 h	597 mg/L (brachydanio rerio)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

· Ecotoxic effects:

1760-24-3 N-(3-(trimethoxysilyl)propyl)ethylenediamine

NOEC	3.1 mg/L (pseudokirchneriella subcapit.)
	20 mg/L (scenedesmus subspicatus)

- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Disposal must be made according to official regulations.
Cured product can be deposited together with domestic waste. Observe the specific related regulations of local authorities.
- **Waste disposal key:** UK : H8 H14

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- **European waste catalogue**

08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances

- **Uncleaned packaging:**

- **Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Non contaminated packagings may be recycled.

SECTION 14: Transport information

- **14.1 UN-Number**

- **ADR, IMDG, IATA**

UN3082

- **14.2 UN proper shipping name**

- **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine, TETRAETHYLENEPENTAMINE)

- **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine, TETRAETHYLENEPENTAMINE), MARINE POLLUTANT

- **IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine, TETRAETHYLENEPENTAMINE)

- **14.3 Transport hazard class(es)**

- **ADR**



- **Class**

9 (M6) Miscellaneous dangerous substances and articles.

- **Label**

9

- **IMDG, IATA**



- **Class**

9 Miscellaneous dangerous substances and articles.

- **Label**

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<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	Product contains environmentally hazardous substances: formaldehyde, polymer with N,N-dimethyl-1,3-propanediamine and phenol Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups 	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F Alkalis
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil, reaction products with tetraethylenepentamine, TETRAETHYLENEPENTAMINE), 9, III

SECTION 15: Regulatory information

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

Directive 1999/45/EC.

"CLP" Regulation (EC) No 1272/2008 (OJ L 353, 31.12.2008, p.1).

"CHIP" SI 2009 No.716.

"REACH" Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p.1, with subsequent amendments).

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- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57** Not applicable.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- R20 Harmful by inhalation.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R36/38 Irritating to eyes and skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 Skin Sens. 1B: Sensitisation - Skin, Hazard Category 1B

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Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· * **Data compared to the previous version altered.**

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