

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

Printing date 08.08.2014

Version number 2

Revision: 08.08.2014

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

- **1.1 Product identifier**

- Trade name: **TREMCO ES400 B**

- **MSDS code:** W-T-ES400B

- **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**

Primer / Subcoating

Hardening agent/ Curing agent

Additional component

- **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

Coupland Road, Hindley Green, Wigan, WN2 4HT

T: +44 (0) 1942251400, F: +44 (0) 1942251410

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**

Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

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

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

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

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

C; Corrosive

R34: Causes burns.

Xn; Harmful

R20/22-62: Harmful by inhalation and if swallowed. Possible risk of impaired fertility.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

- **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.

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- **Classification system:**

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

- **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 GHS08

- **Signal word** Danger

- **Contains:**

Benzyl alcohol
isophorone diamine
bisphenol A
m-phenylenebis(methylamine)

- **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

- **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing vapours.
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.
P312 Call a doctor if you feel unwell.

- **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.

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· Dangerous components:

CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol Xn R20/22 ----- Acute Tox. 4, H302; Acute Tox. 4, H332	30- <50%
CAS: 2855-13-2 EINECS: 220-666-8	isophorone diamine C R34; Xn R21/22; Xi R43 R52/53 ----- Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10- <20%
CAS: 1477-55-0 EINECS: 216-032-5	m-phenylenebis(methylamine) T R23; C R34; Xn R22; Xi R43 R52/53 ----- Acute Tox. 3, H331; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	5- <10%
CAS: 80-05-7 EINECS: 201-245-8 Reg.nr.: 01-2119457856-23-xxxx	bisphenol A Xn R62; Xi R37-41; Xi R43 R52 Repr. Cat. 3 ----- Repr. 2, H361fd; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335	5- <10%
CAS: 90-72-2 EINECS: 202-013-9	2,4,6-tris(dimethylaminomethyl)phenol Xn R22; Xi R36/38 ----- Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	1- <5%
CAS: 109-55-7 EINECS: 203-680-9	3-aminopropyldimethylamine C R34; Xn R22; Xi R43 R10 ----- Flam. Liq. 3, H226; Skin Corr. 1B, H314; Acute Tox. 4, H302; Skin Sens. 1, H317	1- <5%
CAS: 69-72-7 EINECS: 200-712-3	Salicylic acid Xn R20/22; Xi R41 ----- Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332	1- <5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out of danger area and lay down.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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- **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:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
Breathing difficulty
Allergic reactions
Causes severe skin burns and eye damage.
- **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:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide (CO)
Nitrogen oxides (NO_x)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Mouth respiratory protective device.
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 equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
- **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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage**· 7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with the eyes and skin.

The usual precautionary measures are to be adhered to when handling chemicals.

Pregnant women should strictly avoid inhalation or skin contact.

· Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.**· 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:

Do not store together with oxidizing and acidic materials.

Protect from heat and direct sunlight.

· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from humidity and water.

Store receptacle in a well ventilated area.

· 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.

Do not eat, drink, smoke or sniff while working.

Ensure that washing facilities are available at the work place.

Pregnant women should strictly avoid inhalation or skin contact.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter AX/P2

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- **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

Butyl rubber, BR

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

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid

Colour: Brown

- **Odour:** Fish-like

- **Boiling point/Boiling range:** 135 °C

- **Flash point:** 85 °C

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density at 20 °C:** 1.03 g/cm³

- **Solubility in / Miscibility with water:** Slightly soluble.

- **Viscosity:**

Dynamic at 20 °C: 450 - 1400 mPas

- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable

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- **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.
Keep away from heat.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Carbon monoxide
Nitrogen oxides

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

100-51-6 Benzyl alcohol

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

1477-55-0 m-phenylenebis(methylamine)

Oral	LD50	1040 mg/kg (rat)
Inhalative	LC50/4 h	2.4 mg/L (rat)

80-05-7 bisphenol A

Oral	LD50	3250 mg/kg (rat)
Dermal	LD50	3000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **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:
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Causes severe skin burns and eye damage.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
contains CAS 80-05-7 Bisphenol A
Repr. 2

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.

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- **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.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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.
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
- **Waste disposal key:** UK : H5 H8

- **European waste catalogue**

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

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN2735 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR | 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE) |
| <ul style="list-style-type: none"> · IMDG, IATA | AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE) |

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

- **ADR, IMDG, IATA**



- **Class** 8 Corrosive substances.
- **Label** 8

- **14.4 Packing group**

- **ADR, IMDG, IATA** III

- **14.5 Environmental hazards:**

- **Marine pollutant:** No

- **14.6 Special precautions for user**

Warning: Corrosive substances.

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

Not applicable.

- **Transport/Additional information:**

- **ADR**

- **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

- **Tunnel restriction code**

E

- **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

- **UN "Model Regulation":**

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S.
(m - p h e n y l e n e b i s (m e t h y l a m i n e) ,
ISOPHORONEDIAMINE), 8, 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.
 Employment restrictions concerning pregnant and lactating women 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**

- H226 Flammable liquid and vapour.
 - 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.
 - H331 Toxic if inhaled.
 - H332 Harmful if inhaled.
 - H335 May cause respiratory irritation.
 - H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
 - H412 Harmful to aquatic life with long lasting effects.
-
- R10 Flammable.
 - R20/22 Harmful by inhalation and if swallowed.
 - R21/22 Harmful in contact with skin and if swallowed.
 - R22 Harmful if swallowed.
 - R23 Toxic by inhalation.
 - R34 Causes burns.
 - R36/38 Irritating to eyes and skin.
 - R37 Irritating to respiratory system.
 - R41 Risk of serious damage to eyes.
 - R43 May cause sensitisation by skin contact.
 - R52 Harmful to aquatic organisms.
 - R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - R62 Possible risk of impaired fertility.

· **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)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent

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Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
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
Repr. 2: Reproductive toxicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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

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