



**Safety Data Sheet**  
**according to Regulation (EC)**  
**No. 2015/830**

## SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

<b>1.1 Product Identifier</b>	TL/SF41 FASTCURE HARDENER B	<b>Revision Date:</b>	19/01/2017
<b>Product Name:</b>	TL/SF41 Fastcure Hardener B	<b>Supersedes Date:</b>	06/08/2015

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

Coatings and paints, thinners, paint removers. Hand-mixing with intimate contact and only PPE available. Wide dispersive indoor use resulting in inclusion into or onto a matrix. Hardener for 2 components coatings - Industrial use. For use by appropriately trained applicators. Roller application or brushing. Low energy spreading of coatings. Advised against: Home DIY applications, because of the health hazards and training required.

**1.3 Details of the supplier of the safety data sheet**

**Supplier:**

Flowcrete UK Ltd.  
 The Flooring Technology Centre  
 Booth Lane  
 Moston, Sandbach, Cheshire. UK  
 CW11 3QF

Tel: +44 (0)1270 753000  
 Fax: +44 (0)1270 753333  
 ehs.uk@flowcrete.com  
 http://www.flowcrete.co.uk

**Datasheet Produced by:** ehs.uk@flowcrete.com

**1.4 Emergency telephone number:** CHEMTREC +001 703 5273887 (Outside US)  
 CHEMTREC 1-800-424-9300 (Inside US)

## SECTION 2: Hazard Identification

**2.1 Classification of the substance or mixture**

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

**HAZARD STATEMENTS**

Corrosive to the respiratory tract	EUH071
Acute Toxicity, Oral, category 4	H302
Skin Corrosion, category 1B	H314-1B
Skin Sensitizer, category 1	H317

Acute Toxicity, Inhalation, category 4  
 STOT, single exposure, category 3, RTI  
 Reproductive Toxicity, category 2  
 Hazardous to the aquatic environment, Chronic, category 1

H332  
 H335  
 H361  
 H410

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

4-tert-Butylphenol, m-Phenylenebis(methylamine), Trimethylhexane-1,6-diamine

#### HAZARD STATEMENTS

Corrosive to the respiratory tract	EUH071	Corrosive to the respiratory tract.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Corrosion, category 1B	H314-1B	Causes severe skin burns and eye damage.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child.
Hazardous to the aquatic environment, Chronic, category 1	H410	Very toxic to aquatic life with long lasting effects.

#### PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.

## 2.3 Other hazards

No Information

### Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

## SECTION 3: Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous Ingredients

<u>CAS-No.</u>	<u>EINEC No.</u>	<u>Name According to EEC</u>	<u>%</u>
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98-54-4	202-679-0	4-tert-Butylphenol	50-75
1477-55-0	216-032-5	m-Phenylenebis(methylamine)	25-50
25620-58-0	247-134-8	Trimethylhexane-1,6-diamine	10-25

<u>CAS-No.</u>	<u>REACH Reg No.</u>	<u>CLP Symbols</u>	<u>CLP Hazard Statements</u>	<u>M-Factors</u>
98-54-4	01-2119489419-21	GHS05-GHS07-GHS08-GHS09	H302-315-318-335-361-410	
1477-55-0	01-2119480150-50	GHS05-GHS07	H302-314-317-332-412	
25620-58-0	01-2119560598-25	GHS05-GHS07	H302-314-317-412	

**Additional Information:** The text for CLP Hazard Statements shown above (if any) is given in Section 16.

## SECTION 4: First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Risk of product entering the lungs on vomiting after ingestion. Remove contaminated clothing and shoes.

**AFTER INHALATION:** Keep respiratory tract clear. Remove person to fresh air. If signs/symptoms continue, get medical attention.

**AFTER SKIN CONTACT:** If skin irritation persists, call a physician.

**AFTER EYE CONTACT:** Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

**AFTER INGESTION:** Do not induce vomiting without medical advice. If swallowed, seek medical advice immediately and show this container or label.

### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

No Information

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## SECTION 5: Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

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

No Information

### 5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## SECTION 6: Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Remove all sources of ignition.

**6.2 Environmental precautions**

May cause long-term adverse effects in the aquatic environment.

**6.3 Methods and material for containment and cleaning up**

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Refer to protective measures listed in sections 7 and 8.

**6.4 Reference to other sections**

**FURTHER INSTRUCTIONS:** Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

**SECTION 7: Handling and Storage****7.1 Precautions for safe handling**

Use only in well-ventilated areas. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

**7.2 Conditions for safe storage, including any incompatibilities**

**CONDITIONS TO AVOID:** Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze.  
**STORAGE CONDITIONS:** Do not freeze. Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

**7.3 Specific end use(s)**

Component of a resin flooring product. The mixing and application to be in accordance with the technical data sheets.

**SECTION 8: Exposure Controls/Personal Protection****8.1 Control parameters****Ingredients with Occupational Exposure Limits (UK WELS)**

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
4-tert-Butylphenol	98-54-4				
m-Phenylenebis(methylamine)	1477-55-0				
Trimethylhexane-1,6-diamine	25620-58-0				

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
4-tert-Butylphenol	98-54-4	
m-Phenylenebis(methylamine)	1477-55-0	
Trimethylhexane-1,6-diamine	25620-58-0	

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

**8.2 Exposure controls****Personal Protection**

**RESPIRATORY PROTECTION:** In case of insufficient ventilation wear suitable respiratory equipment. Respirator with a vapor filter. Respirator with filter for organic vapor.

**EYE PROTECTION:** Eye wash bottle with pure water. Face-shield.

**HAND PROTECTION:** Rubber or plastic apron.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** As a rule, at least 5 air changes per hour are recommended at the workplace.

**Chemical Name:**

m-Phenylenebis(methylamine)

**EC No.:**

216-032-5

**CAS-No.:**

1477-55-0

**DNELs - Derived no effect level**

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation			0.2 mg/m <sup>3</sup>	1.2 mg/m <sup>3</sup>				
Dermal				0.33 mg/kg bw/d				

**PNEC's - Predicted no effect concentration**

Environmental protection target	PNEC
Fresh water	0.094 mg/l
Fresh water sediments	0.43 mg/kg
Marine water	0.0094 mg/l
Marine sediments	0.043 mg/kg
Food chain	
Microorganisms in sewage treatment	10 mg/l
soil (agricultural)	0.045 mg/kg
Air	

**SECTION 9: Physical and Chemical Properties**

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

<b>Appearance:</b>	Light Yellow
<b>Physical State</b>	Liquid
<b>Odor</b>	Amine Like
<b>Odor threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Melting point / freezing point (°C)</b>	Not determined
<b>Boiling point/range (°C)</b>	272 - N.D.
<b>Flash Point, (°C)</b>	>100
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	Not determined
<b>Vapour Pressure</b>	4 hPa at 121°C
<b>Vapour density</b>	Not determined
<b>Relative density</b>	ca. 1.0 (at 25°C)
<b>Solubility in / Miscibility with water</b>	Slightly
<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Auto-ignition temperature (°C)</b>	Not determined

<b>Decomposition temperature (°C)</b>	>150
<b>Viscosity</b>	ca. 120 - 220 mPa.s at 23 °C
<b>Explosive properties</b>	Not determined
<b>Oxidising properties</b>	Not determined

**9.2 Other information**

**VOC Content g/l:** <100

This is a calculated maximum VOC content for the mixed ready to use product (to Directive 2004/42/EC).

## SECTION 10: Stability and Reactivity

**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Hazardous polymerisation may occur.

**10.4 Conditions to avoid**

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze.

**10.5 Incompatible materials**

Acids. Strong oxidizing agents.

**10.6 Hazardous decomposition products**

In case of fire **hazardous decomposition products** may be produced such as: Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## SECTION 11: Toxicological Information

**11.1 Information on toxicological effects****Acute Toxicity:**

**Oral LD50:** No Information

**Inhalation LC50:** No Information

**Irritation:** No information available.

**Corrosivity:** No information available.

**Sensitization:** No information available.

**Repeated dose toxicity:** No information available.

**Carcinogenicity:** No information available.

**Mutagenicity:** No information available.

**Toxicity for reproduction:** No information available.

**STOT-single exposure:** No information available.

**STOT-repeated exposure:** No information available.

**Aspiration hazard:** No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
98-54-4	4-tert-Butylphenol	1500 mg/kg	5600 mg/kg	
1477-55-0	m-Phenylenebis(methylamine)	1514 mg/kg	2001 mg/kg (rabbit)	
25620-58-0	Trimethylhexane-1,6-diamine	910 mg/kg, oral, rat		

**Additional Information:**

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Corrosive - causes irreversible eye damage.

## SECTION 12: Ecological Information

**12.1 Toxicity:**

**EC50 48hr (Daphnia):** No information

**IC50 72hr (Algae):** No information

**LC50 96hr (fish):** No information

**12.2 Persistence and degradability:** No information

**12.3 Bioaccumulative potential:** No information

**12.4 Mobility in soil:** No information

**12.5 Results of PBT and vPvB assessment:** The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

**12.6 Other adverse effects:** No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
98-54-4	4-tert-Butylphenol	No information	No information	
1477-55-0	m-Phenylenebis(methylamine)	15.2 mg/l	12 mg/l	75 mg/l (Leuciscus idus)
25620-58-0	Trimethylhexane-1,6-diamine	No information	29.5 mg/L	

### Further Ecological Information

Contains the following ingredients which are classified as water dangerous according to EEC directive No. 76/464/EEC in percentages > 1%.

<u>CAS-No.</u>	<u>Name According to EEC</u>
1477-55-0	m-Phenylenebis(methylamine)
25620-58-0	Trimethylhexane-1,6-diamine

## SECTION 13: Disposal Considerations

**13.1 WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Container hazardous when empty. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**European Waste Code:** 080111\*  
**Packaging Waste Code:** 150110

**SECTION 14: Transport Information**

14.1	UN number	UN2735
14.2	UN proper shipping name	Amines, liquid, corrosive, N.O.S.
	Technical name	(Trimethylhexamethylenediamine. m-xylenediamine)
14.3	Transport hazard class(es)	8
	Subsidiary shipping hazard	Not applicable
14.4	Packing group	III
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
	EmS-No.:	Not applicable
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

**SECTION 15: Regulatory Information****15.1 Safety, health and environmental regulations/legislation for the substance or mixture:****National Regulations:**

Denmark Product Registration Number:	Not available
Danish MAL Code:	00-5
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
WGK Class:	Not available

**15.2 Chemical Safety Assessment:**

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

**SECTION 16: Other Information****Text for CLP Hazard Statements shown in Section 3 describing each ingredient:**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Reasons for revision**

Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been



both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

## List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;  
European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;  
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);  
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

## Acronym &amp; Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general

guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.