



## SAFETY DATA SHEET STRONGCOAT HB HARDENER

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

#### 1.1. Product identifier

**Product name** STRONGCOAT HB HARDENER  
**Internal identification** HBHC/10

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

**Identified uses** Component of epoxy coating system  
**Uses advised against** None

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Don Construction Products Ltd.,  
 Hawthorn House  
 Helions Bumpstead Road  
 Haverhill  
 Suffolk  
 CB9 7AA  
 Tel: 01538 361799 Mon-Fri 08:30 - 17:00 (excl bank holidays)  
 Fax: 01538 361899  
 E-Mail: info.uk@dcp-int.com

#### 1.4. Emergency telephone number

**Emergency telephone** 01538 361799 Mon-Fri 8.30am - 5.00pm (excluding Bank Holidays)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

**Physical hazards** Not Classified  
**Health hazards** Acute Tox. 4 - H302 Acute Tox. 4 - H332 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)** Xn;R20/21/22. C;R34. R43. R52/53.

**Human health** The product contains a sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals. This product can cause burns, This product is harmful by inhalation and if swallowed.

**Environmental** The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

#### 2.2. Label elements

## STRONGCOAT HB HARDENER

### Pictogram



### 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.  
 H302+H332 Harmful if swallowed or if inhaled.

### Precautionary statements

P260 Do not breathe vapour/ spray.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P313 Get medical advice/ attention.

### Contains

BENZYL ALCOHOL, ISOPHORONEDIAMINE, M-XYLYLENEDIAMINE, SALICYLIC ACID, 2,4-DINONYLPHENOL

### Supplementary precautionary statements

P264 Wash contaminated skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P271 Use only outdoors or in a well-ventilated area.  
 P273 Avoid release to the environment.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>BENZYL ALCOHOL</b>	<b>30-60%</b>
CAS number: 100-51-6	EC number: 202-859-9
	REACH registration number: 01-2119492630-38-0000

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

<b>ISOPHORONEDIAMINE</b>	<b>30-60%</b>
CAS number: 2855-13-2	EC number: 220-666-8

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

**STRONGCOAT HB HARDENER**

<b>M-XYLYLENEDIAMINE</b>		<b>10-30%</b>
CAS number: 1477-55-0		
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H302	Xn;R20/22. C;R34. R43,R52/53.	
Acute Tox. 4 - H332		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
Aquatic Chronic 3 - H412		
<b>SALICYLIC ACID</b>		<b>1-10%</b>
CAS number: 69-72-7	EC number: 200-712-3	REACH registration number: 01-2119486984-17-0000
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Acute Tox. 4 - H302	Xn;R20/21/22. Xi;R37/38,R41.	
Eye Dam. 1 - H318		
<b>2,4-DINONYLPHENOL</b>		<b>1-10%</b>
CAS number: 137-99-5	EC number: 205-310-1	
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>	
Skin Irrit. 2 - H315	Xi;R38. R43.	
Skin Sens. 1 - H317		

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

**Composition comments** Amine curing agent

#### **SECTION 4: First aid measures**

##### **4.1. Description of first aid measures**

<b>General information</b>	Remove affected person from source of contamination.
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Harmful if inhaled. May cause nausea, headache, dizziness and intoxication.
<b>Ingestion</b>	Harmful if swallowed. May cause chemical burns in mouth, oesophagus and stomach.
<b>Skin contact</b>	Causes severe burns. May cause an allergic skin reaction.

## STRONGCOAT HB HARDENER

**Eye contact** Irritation, burning, lachrymation, blurred vision after liquid splash. Causes serious eye damage.

### 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** Extinguish with foam, carbon dioxide or dry powder.

**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** Toxic gases/vapours/fumes of: Oxides of the following substances: Carbon. Nitrogen.

**Hazardous combustion products** Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

**Protective actions during firefighting** No specific firefighting precautions known.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

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

**Personal precautions** Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin and eyes.

### 6.2. Environmental precautions

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses. Avoid discharge into drains or watercourses or onto the ground. Contain spillages with sand, earth or any suitable absorbent material.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Collect spillage in containers, seal securely and deliver for disposal as hazardous waste.

### 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. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using the product.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep separate from food, feedstuffs, fertilisers and other sensitive material. Store in closed original container at temperatures between 5°C and 30°C. Store in a cool and well-ventilated place.

## STRONGCOAT HB HARDENER

### 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

#### BENZYL ALCOHOL (CAS: 100-51-6)

**DNEL** Workers - Dermal; : 9.5 mg/kg  
Workers - Inhalation; : 90 mg/m<sup>3</sup>

**PNEC** - Fresh water; 1.0 mg/l  
- Marine water; 0.1 mg/l

#### SALICYLIC ACID (CAS: 69-72-7)

**DNEL** Workers - Dermal; : 2 mg/kg/day

**PNEC** - Fresh water; 0.2 mg/l  
- Marine water; 0.02 mg/l

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

#### Personal protection

Always check applicability with your supplier of protective equipment.

#### Eye/face protection

If there is a risk of splashing, wear chemical resistant goggles or visor approved to BS EN166.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Nitrile gloves to BSEN374 are recommended. Break through times can vary depending on thickness, use and source. Change gloves regularly.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.

#### Hygiene measures

Provide eyewash station. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Wash contaminated clothing before reuse.

#### Respiratory protection

In case of inadequate ventilation use a respirator suitable for organic vapours. Consult respirator manufacturer for specific advice.

#### Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

**Appearance** Mobile liquid. Liquid.

**Colour** Yellow.

## STRONGCOAT HB HARDENER

<b>Odour</b>	Amine.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not determined.
<b>Flash point</b>	>100°C
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Other flammability</b>	Not applicable.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	1.04 approx @ 20°C
<b>Bulk density</b>	Not determined.
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	200 Approx mPa s @ 20°C
<b>Explosive properties</b>	Not applicable.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Not determined.
<b>Comments</b>	Information given is applicable to the product in its ready-to-use form.
<b><u>9.2. Other information</u></b>	
<b>Other information</b>	None.
<b>Refractive index</b>	Not determined.
<b>Particle size</b>	Not applicable.
<b>Molecular weight</b>	Not determined.
<b>Volatility</b>	Not determined.
<b>Saturation concentration</b>	Not applicable.
<b>Critical temperature</b>	Not determined.
<b>Volatile organic compound</b>	Not determined.

<b>SECTION 10: Stability and reactivity</b>
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## STRONGCOAT HB HARDENER

### 10.1. Reactivity

**Reactivity** The following materials may react with the product: Acids. Strong alkalis. Strong oxidising agents.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4. Conditions to avoid

**Conditions to avoid** Considerable exothermic reaction can occur when mixed with epoxide resins

### 10.5. Incompatible materials

**Materials to avoid** Strong acids. Strong alkalis. Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Oxides of carbon. Oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** No information available.

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** No specific test data are available.

**ATE oral (mg/kg)** 531.40276833

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** No specific test data are available.

**ATE dermal (mg/kg)** 2,929.72040213

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** No specific test data are available.

**ATE inhalation (vapours mg/l)** 17.61585286

#### Skin corrosion/irritation

**Skin corrosion/irritation** Corrosive to skin., Causes severe burns.

**Animal data** No specific test data are available.

**Human skin model test** No specific test data are available.

**Extreme pH** No specific test data are available.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Corrosivity to eyes is assumed.

#### Respiratory sensitisation

**Respiratory sensitisation** No specific test data are available.

#### Skin sensitisation

**Skin sensitisation** Sensitising.

## STRONGCOAT HB HARDENER

### Germ cell mutagenicity

**Genotoxicity - in vitro** No specific test data are available.

**Genotoxicity - in vivo** No specific test data are available.

### Carcinogenicity

**Carcinogenicity** No specific test data are available.

**IARC carcinogenicity** Not listed.

### Reproductive toxicity

**Reproductive toxicity - fertility** No information available.

### Specific target organ toxicity - single exposure

**STOT - single exposure** No specific test data are available.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** No specific test data are available.

### Aspiration hazard

**Aspiration hazard** Not relevant.

### **General information**

Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.

### **Inhalation**

Harmful by inhalation.

### **Ingestion**

Harmful if swallowed. May cause chemical burns in mouth, oesophagus and stomach.

### **Skin contact**

Causes burns. May cause sensitisation by skin contact.

### **Eye contact**

May cause chemical eye burns.

### **Acute and chronic health hazards**

This product is corrosive. This product may cause skin and eye irritation. Prolonged contact may cause burns. Prolonged inhalation of high concentrations may damage respiratory system. May cause sensitisation by skin contact. Frequent inhalation of vapours may cause respiratory allergy.

### **Route of entry**

Skin and/or eye contact Inhalation

### **Target organs**

Eyes Respiratory system, lungs Skin

### **Medical symptoms**

Chemical burns. General respiratory distress, unproductive cough. Severe skin irritation. Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

### **Medical considerations**

Pre-existing eye problems. Skin disorders and allergies. Chronic respiratory and obstructive airway diseases.

### BENZYL ALCOHOL

#### Acute toxicity - inhalation

**ATE inhalation (vapours mg/l)** 11.0

### M-XYLYLENEDIAMINE

#### Acute toxicity - inhalation

**ATE inhalation (vapours mg/l)** 11.0



**STRONGCOAT HB HARDENER****SALICYLIC ACID****Acute toxicity - oral****Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 891 mg/kg, Oral, Rat**ATE oral (mg/kg)** 500.0**Acute toxicity - dermal****Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> > 2000 mg/kg, Dermal, Rat**SECTION 12: Ecological Information****Ecotoxicity** The product should not be allowed to enter drains, sewers or watercourses.**12.1. Toxicity****Toxicity** Not measured. Do not allow to enter waterways or drains**Acute toxicity - fish** Not determined**Acute toxicity - aquatic invertebrates** Not determined.**Acute toxicity - aquatic plants** Not determined.**Acute toxicity - microorganisms** Not determined.**Acute toxicity - terrestrial** Not determined.**Chronic toxicity - fish early life stage** Not determined.**Short term toxicity - embryo and sac fry stages** Not determined.**Chronic toxicity - aquatic invertebrates** Not determined.**SALICYLIC ACID****Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 1380 mg/l, Pimephales promelas (Fat-head Minnow)**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 870 mg/l, Daphnia magna**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: > 100 mg/l, Desmodesmus subspicatus**12.2. Persistence and degradability****Persistence and degradability** There are no data on the degradability of this product.**Phototransformation** Not determined.**Stability (hydrolysis)** Not determined.**Biodegradation** Not determined.**Biological oxygen demand** Not determined.**Chemical oxygen demand** Not determined.**12.3. Bioaccumulative potential**

## STRONGCOAT HB HARDENER

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not applicable.

### 12.4. Mobility in soil

**Mobility** The product is non-volatile.

**Adsorption/desorption coefficient** Not determined.

**Henry's law constant** Not determined.

**Surface tension** Not determined.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods** Small quantities may be treated with an equivalent quantity of product resin, allowed to cure and disposed of as low hazard waste. Larger quantities should be disposed of as hazardous waste via a licensed waste operator. Product containers must not be re-used without commercial cleaning.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 2735

**UN No. (IMDG)** 2735

**UN No. (ICAO)** 2735

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** POLYAMINES, LIQUID, CORROSIVE, N.O.S (ISOPHORONEDIAMINE, MXYLYLENEDIAMINE)

**Proper shipping name (IMDG)** POLYAMINES, LIQUID, CORROSIVE, N.O.S (ISOPHORONEDIAMINE, MXYLYLENEDIAMINE)

**Proper shipping name (ICAO)** POLYAMINES, LIQUID, CORROSIVE, N.O.S (ISOPHORONEDIAMINE, MXYLYLENEDIAMINE)

**Proper shipping name (ADN)** POLYAMINES, LIQUID, CORROSIVE, N.O.S (ISOPHORONEDIAMINE, MXYLYLENEDIAMINE)

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID label** 8

**IMDG class** 8

**ICAO class/division** 8

## STRONGCOAT HB HARDENER

### Transport labels



#### 14.4. Packing group

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

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant  
No.

#### 14.6. Special precautions for user

EmS	F-A, S-B
Emergency Action Code	3X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

### SECTION 15: Regulatory information

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

National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.

#### 15.2. Chemical safety assessment

### SECTION 16: Other information

General information	Don Construction Products Ltd. Technical Datasheet.
Key literature references and sources for data	Health and Safety Executive Guidance Note EH40 (amended annually). Workplace Exposure Limits.
Revision comments	Section 1 update
Revision date	08/03/2017
Revision	10
Supersedes date	03/06/2016
SDS status	Approved.

## STRONGCOAT HB HARDENER

### Risk phrases in full

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R20/22 Harmful by inhalation and if swallowed.  
R21/22 Harmful in contact with skin and if swallowed.  
R34 Causes burns.  
R37/38 Irritating to respiratory system and skin.  
R38 Irritating to skin.  
R41 Risk of serious damage to eyes.  
R43 May cause sensitisation by skin contact.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Hazard statements in full

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.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.