



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-XYLYLENE DIAMINE, 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**

BENZYL ALCOHOL	30-60%
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	Xn;R20/22
Acute Tox. 4 - H332	
ISOPHORONEDIAMINE	30-60%
CAS number: 2855-13-2	EC number: 220-666-8
Classification	Classification (67/548/EEC or 1999/45/EC)
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	

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M-XYLYLENDIAMINE		10-30%
CAS number: 1477-55-0		
Classification	Classification (67/548/EEC or 1999/45/EC)	
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		
SALICYLIC ACID		1-10%
CAS number: 69-72-7	EC number: 200-712-3	REACH registration number: 01-2119486984-17-0000
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H302	Xn;R20/21/22. Xi;R37/38,R41.	
Eye Dam. 1 - H318		
2,4-DINONYLPHENOL		1-10%
CAS number: 137-99-5	EC number: 205-310-1	
Classification	Classification (67/548/EEC or 1999/45/EC)	
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**

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

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

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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.

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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 ³
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.

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

SECTION 10: Stability and reactivity

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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 LD₅₀) No specific test data are available.

ATE oral (mg/kg) 531.40276833

Acute toxicity - dermal

Notes (dermal LD₅₀) No specific test data are available.

ATE dermal (mg/kg) 2,929.72040213

Acute toxicity - inhalation

Notes (inhalation LC₅₀) 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.

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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 LD₅₀) LD₅₀ 891 mg/kg, Oral, Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermalNotes (dermal LD₅₀) LD₅₀ > 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 LC₅₀, 96 hours: 1380 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 870 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 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

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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

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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.