SAFETY DATA SHEET

H78F HARDENER

Compilation date: 24/11/2020

Revision date: N/A

Revision No: N/A

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

1.1. Product identifier

Product name: H75F HARDENER

Product code: 33

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

Use of substance / mixture: PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers. PC9b: Fillers, putties, plasters, modelling clay. PC32: Polymer preparations and compounds. PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC5: Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available ERC2: Formulation of preparations* ERC3: Formulation in materials ERC5: Industrial use resulting in inclusion into or onto a matrix ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

1.3. Details of the supplier of the safety data sheet

Company name: DIY COMPOSITES LTD

Unit B3 Roundhouse Close

Fengate

Peterborough

PE1 5TA

United Kingdom

Tel: +44 (0) 1733 512 232
(office hours only)

Email: info@diycomposites.co.uk

[cont...]

1.4. Emergency telephone number

Emergency tel: +44 (0) 1733 512 232

Emergency action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Acute Tox. 4: H302; Aquatic Chronic 2: H411; Skin Corr. 1B: H314; Skin Sens. 1: H317

Most important adverse effects: Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H411: Toxic to aquatic life with long lasting effects.

Hazard pictograms: GHS05: Corrosion

GHS07: Exclamation mark

GHS09: Environmental

Signal words: Danger

Precautionary statements: P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312: IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P302+P352: IF ON SKIN: Wash with plenty of water.

P362+P364: Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

Section 3: Composition/information on ingredients

3.2. Mixtures

PBT: This product is not identified as a PBT/vPvB substance.

Hazardous ingredients:

[cont...]

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE - REACH registered number(s): 01-2119514687-32

EINECS	CAS	PBT / WEL	CLP Classification	Percent
220-666-8	2855-13-2	-	Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 3: H412	>50%

PHENOL, STYRENATED - REACH registered number(s): 01-2119980970-27

262-975-0	61788-44-1	-	Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Chronic 2: H411	25-50%

PENTAETHYLENEHEXAMINE - REACH registered number(s): 01-2119485826-22

223-775-9	4067-16-7	-	Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-25%

HEPA - REACH registered number(s): 01-2119485823-28

268-626-9	68131-73-7	-	Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-25%

3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE - REACH registered number(s): 01-2119487290-37

203-986-2	112-57-2	-	Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 2: H411	0.05-1%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

[cont...]

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Section 5: Fire-fighting measures

5.1. Extinguishing media

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

[cont...]

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Section 8: Exposure controls/personal protection

8.1. Control parameters

Specific end use(s): No data available.

Workplace exposure limits: No data available.

DNEL/PNEC Values

Hazardous ingredients:

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	20.1 mg/m3	Workers	-
PNEC	Fresh water	0.06 mg/l	-	-
PNEC	Marine water	0.006 mg/l	-	-
PNEC	Fresh water sediments	5.784 mg/kg	-	-
PNEC	Marine sediments	0.578 mg/kg1.121 mg/	-	-
PNEC	Soil (agricultural)	-	-	-

PENTAETHYLENEHEXAMINE

Type	Exposure	Value	Population	Effect
PNEC	Fresh water	2.5 µg/l	-	-
PNEC	Marine water	2.5 µg/l	-	-
PNEC	Fresh water sediments	0.22 mg/kg dwt	-	-
PNEC	Marine sediments	0.14 mg/kg dwt	-	-
PNEC	Soil (agricultural)	0.18 mg/kg dwt	-	-
PNEC	Microorganisms in sewage treatment	1.64 mg/l	-	-
DNEL	Inhalation	8550 mg/m3	Workers	Systemic
DNEL	Inhalation (repeated dose)	1.59 mg/m3	Workers	Systemic
DNEL	Dermal (repeated dose)	0.91 mg/kg bw/day	Workers	Systemic
DNEL	Dermal (repeated dose)	0.044 mg/cm2	Workers	Local
DNEL	Inhalation	2542 mg/m3	Consumers	Systemic
DNEL	Inhalation (repeated dose)	0.46 mg/m3	Consumers	Systemic

[cont...]

DNEL	Dermal (repeated dose)	0.4 mg/kg bw/day	Consumers	Systemic
DNEL	Oral (repeated dose)	0.65 mg/kg bw/day	Consumers	Systemic
DNEL	Dermal	13 mg/kg bw/day	Consumers	Systemic
DNEL	Oral	32 mg/kg bw/day	Consumers	Systemic
DNEL	Dermal	1.59 mg/cm2	Consumers	Local
DNEL	Dermal (repeated dose)	0.68 mg/cm2	Consumers	Local

3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE

Type	Exposure	Value	Population	Effect
PNEC	Fresh water	0.0068 mg/l	-	-
PNEC	Marine water	0.0068 mg/l	-	-
PNEC	Fresh water sediments	0.341 mg/kg	-	-
PNEC	Marine sediments	0.746 mg/kg	-	-
PNEC	Soil (agricultural)	0.274 mg/kg	-	-
PNEC	Microorganisms in sewage treatment	4.6 mg/l	-	-

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Environmental: The floor of the storage room must be impermeable to prevent the escape of liquids.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale yellow

Odour: Characteristic odour

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

Viscosity: 140 mPas (25°C)

Boiling point/range°C: No data available.

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: No data available.

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: No data available.

Vapour pressure: No data available.

Relative density: 0.92 - 0.97

pH: No data available.

VOC g/l: No data available.

[cont...]

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Reactivity: Stable under recommended transport or storage conditions.

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Materials to avoid: Strong oxidising agents. Strong acids.

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

DERMAL	RAT	LD50	> 2000	mg/kg
DERMAL	RBT	LD50	1840	mg/kg
DUST/MIST	RAT	4H LC50	> 5.01	mg/l
ORAL	RAT	LD50	1030	mg/kg

PHENOL, STYRENATED

DERMAL	RAT	LD50	>2000	mg/kg
DUST/MIST	RAT	4H LC0	4.9	mg/l
ORAL	RAT	LD50	>2000	mg/kg

PENTAETHYLENEHEXAMINE

DERMAL	RBT	LD50	1465.4	mg/kg

[cont...]

ORL	RAT	LD50	1600	mg/kg

3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE

IPR	RAT	LD50	205	mg/kg
IVN	MUS	LD50	320	mg/kg
ORL	RAT	LD50	3990	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

BACTERIA	15H EC10	1120	mg/l
Daphnia magna	48H EC50	23	mg/l
Scenedesmus Subspicatus	72H EC50	> 50	mg/l
ZEBRAFISH (Brachydanio rerio)	96H LC50	110	mg/l

PHENOL, STYRENATED

ALGAE (Scenedesmus sp.)	72H EL50	3.14	mg/l
Daphnia magna	48H EL50	1 - 10	mg/l
Daphnia magna	NOEC (21d)	0.115	mg/l
FISH	96H LL50	14.8	mg/l

[cont...]

PENTAETHYLENEHEXAMINE

ALGAE	72H EC50	0.7	mg/l
BACTERIA	2H EC50	164	mg/l
DAPHNIA	48H EC50	17.5	mg/l
FISH	96H LC50	180	mg/l

3,6,9-TRIAZAUNDECAMETHYLENEDIAMINE

ALGAE	72H ErC50	6.8	mg/l
DAPHNIA	48H EC50	24.1	mg/l
FISH	96H LC50	420	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

12.4. Mobility in soil

Bioaccumulative potential: No bioaccumulation potential.

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

PBT identification: This product is not identified as a PBT/vPvB substance.

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN2735

14.2. UN proper shipping name

Shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.

(Contains: Aliphatic amines; Nonylphenol)

[cont...]

Other information

Section 15: Regulatory information

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

Transport class: 8

Packing group: III

Environmentally hazardous: Yes   **Marine pollutant:** Yes

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

Specific regulations: Not applicable.

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Other information: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: 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.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.