



SAFETY DATA SHEET

according to Regulation (EU) 2015/830

Page 1/8

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

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

1.1. Product identifier

Product name Flexiseal Pro Hardener

1.3. Details of the supplier of the safety data sheet

Company RIW Limited
Address Arc House
Terrace Road South
Binfield, Bracknell
Berkshire RG42 4PZ
Web www.riw.co.uk
Telephone +44 (0)1344 397788
Email enquiries@riw.co.uk
Email address of the competent person sds@riw.co.uk

1.4. Emergency telephone number

Emergency telephone number +44 (0)1270 502891
Company NCEC
24 hours

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - EC 1272/2008 Skin Corr. 1B: H314; Skin Sens. 1: H317; Repr. 2: H361f; Aquatic Chronic 3: H412;

2.2. Label elements

Hazard pictograms



Signal Word

Danger

Hazard Statement

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Repr. 2: H361f - Suspected of damaging fertility.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statement: Prevention

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

2.2. Label elements

Precautionary Statement: Response	P273 - Avoid release to the environment. 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/ . P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. P308+P313 - IF exposed or concerned: Get medical advice/attention. P310 -Immediately call a POISON CENTER/doctor/ . P321 - Specific treatment (see on this label). P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P363 - Wash contaminated clothing before reuse.
Precautionary Statement: Storage	P405 - Store locked up.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to licensed waste disposal site

2.3. Other hazards

Other hazards	None known.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with teta Benzyl alcohol	603-057-00-5	100-51-6	202-859-9	01-2119492630-38	10 - 20%	Skin Irrit. 2: H315; Skin Sens. 1: H317; Eye Irrit. 2: H319; Aquatic Chronic 3: H412;
Fatty acids, tall-oil, reaction products with teta m-phenylenebis(methylamine)	1477-55-0	216-032-5			10 - 20%	Eye Irrit. 2: H319;
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	612-067-00-9	2855-13-2	220-666-8	01-2119514687-32	1 - 10%	Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 3: H412;
N,N-Dimethyl-1,3-diaminopropane	612-061-00-6	109-55-7	203-680-9		1 - 10%	Flam. Liq. 3: H226; Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317;
4,4'-Isopropylidenediphenol (Bisphenol A inhalable dust)	604-030-00-0	80-05-7	201-245-8		1 - 10%	Repr. 2: H361f; STOT SE 3: H335; Eye Dam. 1: H318; Skin Sens. 1: H317;
2,4,6-Tris(dimethylaminomethyl)phenol triethylenetetramin	603-069-00-0	90-72-2	202-013-9		1 - 10%	Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315;
Amines, polyethylenepoly-, tetraethylenepentamine fraction	90640-67-8	292-588-2			0 - 0.5%	Acute Tox. 4: H302; Acute Tox. 4: H312; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 3: H412;
	90640-66-7	292-587-7			0 - 0.5%	Acute Tox. 4: H302; Acute Tox. 4: H312; Skin Corr. 1B: H314; Skin Sens. 1: H317; Aquatic Chronic 2: H411;

SECTION 4: First aid measures

4.1. Description of first aid measures

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If you feel unwell, seek medical advice (show the label where possible).
Eye contact	Rinse immediately with plenty of water for 15 minutes. Seek medical attention if irritation or symptoms persist.
Skin contact	Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.

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

Inhalation	Inhalation of vapour may cause shortness of breath.
Eye contact	May cause irritation to eyes.
Skin contact	May cause sensitisation by skin contact. Irritating to skin.
Ingestion	Ingestion causes burns to the respiratory tract. Irritating to mouth, throat and stomach.

SECTION 5: Firefighting measures

5.1. Extinguishing media

	Use foam, carbon dioxide, dry powder, sand or earth.
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5.2. Special hazards arising from the substance or mixture

	Burning produces irritating, toxic and obnoxious fumes.
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5.3. Advice for firefighters

	The product is not flammable. Use extinguishing media appropriate to the surrounding fire conditions. Wear suitable respiratory equipment when necessary.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection. Take off immediately all contaminated clothing.
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6.2. Environmental precautions

	Do not allow product to enter drains. Prevent further spillage if safe.
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6.3. Methods and material for containment and cleaning up

	Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.
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6.4. Reference to other sections

	SECTION 13: Disposal considerations. SECTION 14: Transport information. SECTION 8: Exposure controls/personal protection.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

	Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink or smoke.
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7.2. Conditions for safe storage, including any incompatibilities

	Keep in a cool, dry, well ventilated area. Keep containers tightly closed.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

8.1.1. Exposure Limit Values

4,4'-Isopropylidenediphenol (Bisphenol A inhalable dust)	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m3: 10
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m3: -
	WEL 8-hr limit mg/m3 total inhalable dust: -	WEL 15 min limit mg/m3 total inhalable dust: -
	WEL 8-hr limit mg/m3 total respirable dust: -	WEL 15 min limit mg/m3 total respirable dust: -

DNEL: Derived no-effect level.


Exposure Pattern - Workers

Benzyl alcohol	Acute dermal - Local effects 47 mg/kg Long-term - dermal - Systemic effects 9.5 mg/kg
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Exposure Pattern - General population

Benzyl alcohol	Acute oral - Systemic effects 25 mg/kg Long-term - oral - Systemic effects 5 mg/kg
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8.2. Exposure controls

	
8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Wear suitable protective clothing.
Eye / face protection	Safety glasses.
Skin protection - Handprotection	Chemical resistant gloves (PVC).
Respiratory protection	Not normally required. In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Amber
Odour	Characteristic
Melting point	Not determined
Initial boiling point	> 136 °C
Flash point	> 100 °C
Relative density	1.01 (H2O = 1 @ 20 °C)
Autoignition temperature	Not determined
Viscosity	≥ 200 cPs (BS EN brookfield)
Explosive properties	Not determined
Oxidising properties	Not determined
Solubility	Insoluble in water

SECTION 10: Stability and reactivity

10.1. Reactivity

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Alkali metals. Strong acids. Strong exothermic reaction in contact with acids. Strong oxidising agents.

10.4. Conditions to avoid

Keep away from incompatible materials.

10.5. Incompatible materials

Strong acids. Oxidising agents.

10.6. Hazardous decomposition products

Burning produces obnoxious and irritating fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin corrosion/irritation	CAUSES SEVERE SKIN BURNS.
Serious eye damage/irritation	Strong irritant with the danger of severe eye damage.
Respiratory or skin sensitisation	May cause sensitisation by skin contact.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	No carcinogenic effects reported.
Reproductive toxicity	Possible risk of harm to the unborn child. Possible risk of impaired fertility.

11.1.4. Toxicological Information

2,4,6-Tris(dimethylaminomethyl) phenol	Dermal Rat LD50: 1280 mg / kg	Oral Rat LD50: 1200 mg / kg
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Oral Rat LD50: 1030 mg/kg	
4,4'-isopropylidenediphenol	Oral Rat LD50: 4040 mg / kg	Dermal Rabbit LD50: 3000 mg / kg
Benzyl alcohol	Dermal Rat LD50: 2000 mg / kg Inhalation Rat LC50/4 h: >4178 mg/m ³	Oral Rat LD50: 1620 mg/kg
Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with teta	Oral Rat LD50: >16000 mg/kg	
m-phenylenebis(methylamine)	Inhalation Rat LC50/2.6 mg / kg 4 h:	Oral Rat LD50: 1040 mg / kg

SECTION 12: Ecological information

12.1. Toxicity

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

12.1. Toxicity

3-Aminomethyl-3,5,5-trimethylcyclohexylamine	Daphnia EC50/48h: 23.0000 mg/l Fish LC50/96h: 110.0000 mg/l	Algae IC50/72h: 50 mg/l
Benzyl alcohol	Daphnia EC50/48h: 230.0000 mg/l Fish LC50/96h: 460 mg/l	Algae IC50/72h: 700.0000 mg/l
Fatty acids, C18-unsaturated, dimers, oligomeric reaction products with teta	Fish LC50/96h: 10 mg/l	
m-phenylenebis(methylamine)	Daphnia EC50/48h: 16.0000 mg/l Fish LC50/96h: 87.6 mg/l	Algae IC50/72h: 20.3000 mg/l
N,N-Dimethyl-1,3-diaminopropane	Daphnia EC50/48h: 59.5000 mg/l Fish LC50/96h: 122.0000 mg/l	Algae IC50/72h: 53.5 mg/l

12.2. Persistence and degradability

	No data is available on this product.
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12.4. Mobility in soil

	No data is available on this product.
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12.5. Results of PBT and vPvB assessment

	This substance does not meet the criteria for classification as PBT or vPvB.
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12.6. Other adverse effects

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

	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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SECTION 13: Disposal considerations

General information

	Dispose of in compliance with all local and national regulations.
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Disposal methods

	Dispose of this material and its container to hazardous or special waste collection point.
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Disposal of packaging

	After final product withdrawal, all residues must be removed from containers (drip-free, powder-free or paste-free).
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SECTION 14: Transport information

Hazard pictograms

	
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14.1. UN number

	UN2735
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14.2. UN proper shipping name

	AMINES, LIQUID, CORROSIVE N.O.S.
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14.3. Transport hazard class(es)

ADR/RID	8
Subsidiary risk	-

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

14.3. Transport hazard class(es)

IMDG	8
Subsidiary risk	-
IATA	8
Subsidiary risk	-

14.4. Packing group

Packing group	II
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14.5. Environmental hazards

Environmental hazards	No
Marine pollutant	No

ADR/RID

Hazard ID	80
Tunnel Category	(E)

IMDG

EmS Code	F-A S-B
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IATA

Packing Instruction (Cargo)	855
Maximum quantity	30 L
Packing Instruction (Passenger)	851
Maximum quantity	1 L

SECTION 15: Regulatory information

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

Regulations	This Safety Data Sheet has been prepared in accordance with Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Classification has been made in accordance with Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation).
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15.2. Chemical safety assessment

	Not required.
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SECTION 16: Other information

Other information

Data sources	Data extracted from individual component Safety Data Sheets.
Text of Hazard Statements in Section 3	<p>Skin Irrit. 2: H315 - Causes skin irritation.</p> <p>Skin Sens. 1: H317 - May cause an allergic skin reaction.</p> <p>Eye Irrit. 2: H319 - Causes serious eye irritation.</p> <p>Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.</p> <p>Acute Tox. 4: H302 - Harmful if swallowed.</p> <p>Acute Tox. 4: H332 - Harmful if inhaled.</p> <p>Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.</p> <p>Acute Tox. 4: H312 - Harmful in contact with skin.</p> <p>Flam. Liq. 3: H226 - Flammable liquid and vapour.</p> <p>Eye Dam. 1: H318 - Causes serious eye damage.</p> <p>STOT SE 3: H335 - May cause respiratory irritation.</p> <p>Repr. 2: H361f - Suspected of damaging fertility.</p> <p>Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin</p> <p>Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.</p>

Flexiseal Pro Hardener

Revision 0

Revision date 2018-06-27

Further information

	<p>The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process.</p>
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