

## Safety data sheet according to 1907/2006/EC, Article 31

Printing Date: 12.06.2023

Version Number: 1.0

Revision Date: 12.06.2023

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

#### 1.1 Product identifier:

Trade name: ***RIW TOUGHSEAL ECO HARDENER***

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

Relevant identified uses of the substance or mixture: Waterproofing.

Identified uses advised against: No further relevant information available.

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

##### Manufacturer/supplier:

RIW Limited  
487-488 Ipswich Road,  
Slough, Berkshire  
SL1 4EP

Tel: +44 (0)1753 944210

[www.riw.co.uk](http://www.riw.co.uk)Further information obtainable from: [enquiries@riw.co.uk](mailto:enquiries@riw.co.uk)

#### 1.4 Emergency telephone number:

For Chemical Emergency: (Spill, Leak, Fire, Exposure or Accident) - Call CHEMTREC (Day/Night) on:

Within USA & Canada : 800-424-9300,  
Outside USA & Canada : +1 703-741-5970

National emergency telephone number: CHEMTREC UK +(44)-870-8200418

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements:

##### Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

##### Hazard pictograms



GHS05 GHS07

Signal word Danger

##### Hazard-determining components of labelling:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

m-phenylenebis (methylamine)

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

Isophorondiamine

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**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.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.

**Hazard description:** Corrosive**2.3 Other hazards:****Results of PBT and vPvB assessment:**

**PBT:** Not applicable.  
**vPvB:** Not applicable.

**Determination of endocrine-disrupting properties**

69-72-7 | salicylic acid

List II, III

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:**

Mixture of substances listed below with non-hazardous additions.

For further information, please refer to the product technical data sheet.

**Dangerous components:**

CAS: 38294-64-3 NLP: 500-101-4 Reg.nr.: 01-2119965165-33-XXXX	4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine ----- Skin Corr. 1B, H314; Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412	30-<50%
EC number: 700-960-7	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol ----- Skin Irrit. 2, H315; Skin Sens. 1, H317 Aquatic Chronic 3, H412	30-<50%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50-XXXX	m-phenylenebis (methylamine) ----- Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317 Aquatic Chronic 3, H412	10-<20%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-XXXX	Isophorondiamine ----- Skin Corr. 1B, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Sens. 1A, H317 ATE: LD50 oral: 1,030 mg/kg Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	10-<20%
CAS: 113930-69-1	M-phenylenebis (methylamine) ----- Acute Tox. 4, H302; Skin Sens. 1, H317	10-<20%
CAS: 69-72-7 EINECS: 200-712-3 Index number: 607-732-00-5	salicylic acid ----- Repr. 2, H361d Eye Dam. 1, H318 Acute Tox. 4, H302	1-<3%

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**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:** Get medical advice/attention if you feel unwell.**After inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.**After skin contact:** Wash with plenty of soap and water.**After eye contact:** Rinse cautiously with water for several minutes.**After swallowing:**

Rinse mouth.

Do NOT induce vomiting.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

**4.2 Most important symptoms and effects, both acute and delayed:**

Causes burns.

May cause sensitisation by skin contact.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media:****Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.**5.2 Special hazards arising from the substance or mixture:**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters:****Protective equipment:** Wear self-contained respiratory protective device.**Additional information:** Collect contaminated fire fighting water separately. It must not enter the sewage system.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.**6.3 Methods and material for containment and cleaning up:**

Use neutralising agent.

Send for recovery or disposal in suitable receptacles.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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

Do not eat, drink or smoke when using this product.

Store in a well-ventilated place. Keep container tightly closed.

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Keep only in original packaging.

Use only outdoors or in a well-ventilated area.

**Information about fire - and explosion protection:** No special measures required.

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

**STORAGE**

**Information about storage in one common storage facility:** Keep respiratory protective device available.

**Further information about storage conditions:**

Keep container tightly sealed.

Protect from frost.

Store in a dry place.

Keep cool.

**7.3 Specific end use(s):** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters:**

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**DNELs**

**1477-55-0 m-phenylenebis (methylamine)**

Dermal	DNEL long term syst.	0.33 mg/kg bw/d (workers)
Inhalative	DNEL long term local eff	0.2 mg/m <sup>3</sup> (workers)
	DNEL long term syst.	1.2 mg/m <sup>3</sup> (workers)

**2855-13-2 Isophorondiamine**

Inhalative	DNEL acute local eff	0.073 mg/m <sup>3</sup> (workers)
	DNEL long term local eff	0.073 mg/m <sup>3</sup> (workers)

**113930-69-1 M-phenylenebis (methylamine)**

Dermal	DNEL long term syst.	0.47 mg/kg bw/d (workers)
Inhalative	DNEL long term syst.	3.27 mg/m <sup>3</sup> (workers)

**69-72-7 salicylic acid**

Dermal	DNEL long term syst.	2.3 mg/kg bw/d (workers)
Inhalative	DNEL long term local eff	5 mg/m <sup>3</sup> (workers)
	DNEL long term syst.	5 mg/m <sup>3</sup> (workers)

**Additional information:** Based on the lists valid at the date of SDS creation.

**8.2 Exposure controls:**

**Appropriate engineering controls** No further data; see item 7.

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:**

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

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**Hand protection**

Protective gloves.

EN 374.

**Material of gloves:**

Rubber gloves.

Nitrile rubber.

**Penetration time of glove material:**

The exact breakthrough time has to be determined by the manufacturer of the protective gloves and has to be observed.

**Eye/face protection**

Safety glasses with side shield protection.

EN 166.

**Body protection:**

Use personal protective equipment as required.

Take off contaminated clothing.

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties:****GENERAL INFORMATION**

<b>Physical state</b>	Liquid.
<b>Colour:</b>	Yellow.
<b>Odour:</b>	Ammoniacal
<b>Odour threshold:</b>	Not determined.
<b>Melting point/freezing point:</b>	Undetermined.
<b>Boiling point or initial boiling point and boiling range</b>	>250 °C
<b>Flammability</b>	Not applicable.
<b>Flammability Limits :</b>	
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Flash point:</b>	>100 °C
<b>Method:</b>	
<b>Ignition temperature:</b>	Not determined.
<b>Decomposition temperature:</b>	Not determined.
<b>pH</b>	Not determined.
<b>VISCOSITY</b>	
<b>Kinematic viscosity</b>	Not determined.
<b>Dynamic:</b>	Not determined.
<b>Solubility</b>	
<b>Water:</b>	Not miscible or difficult to mix.
<b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Density and/or relative density</b>	
<b>Density at 20 °C:</b>	1 g/cm <sup>3</sup>
<b>Vapour density:</b>	Not determined.
<b>Particle characteristics</b>	Not applicable.

**9.2 Other information:****Appearance:****Form:** Liquid.**Important information on protection of health and environment, and on safety:****Auto-ignition temperature:** Not determined.**Explosive properties:** Product does not present an explosion hazard.

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<b>SOLVENT CONTENT</b>	
<b>VOC (EC):</b>	0.00 %
<b>Change in conditions:-</b>	
<b>Evaporation rate:</b>	Not determined.
<b>Molecular weight</b>	Not determined.

<b>Information with regard to physical hazard classes</b>	
<b>Explosives</b>	Not applicable.
<b>Flammable gases</b>	Not classified.
<b>Aerosols</b>	Not classified.
<b>Oxidising gases</b>	Not classified.
<b>Gases under pressure</b>	Not classified.
<b>Flammable liquids</b>	Not classified.
<b>Flammable solids</b>	Not classified.
<b>Self-reactive substances and mixtures</b>	Not classified.
<b>Pyrophoric liquids</b>	Not classified.
<b>Pyrophoric solids</b>	Not classified.
<b>Self-heating substances and mixtures</b>	Not classified.
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Not classified.
<b>Oxidising liquids</b>	Not classified.
<b>Oxidising solids</b>	Not classified.
<b>Organic peroxides</b>	Not classified.
<b>Corrosive to metals</b>	Not classified.
<b>Desensitised explosives</b>	Not classified.

## SECTION 10: Stability and reactivity

**10.1 Reactivity:** Reacts with acids.

### 10.2 Chemical stability:

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

### 10.3 Possibility of hazardous reactions

No dangerous reactions known.

No further relevant information available.

**10.4 Conditions to avoid:** Protect from heat and direct sunlight.

**10.5 Incompatible materials:** Strong acids and oxidising agents.

**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**ACUTE TOXICITY** Based on available data, the classification criteria are not met.

#### LD/LC50 values relevant for classification:

##### 1477-55-0 m-phenylenebis (methylamine)

Oral	LD50	980 mg/kg (rat) (OECD 401)
Dermal	LD50	3,100 mg/kg (rat) (OECD 402)
	LC50, 96h	87.6 mg/l (fish)

##### 2855-13-2 Isophorondiamine

Oral	LD50	1,030 mg/kg (ATE)
		1,030 mg/kg (rat) (OECD 401)
Dermal	LD50	mg/kg (rabbit)

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

**Serious eye damage/irritation** Causes serious eye damage.

**Respiratory or skin sensitisation** May cause an allergic skin reaction.

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**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT-single exposure** Based on available data, the classification criteria are not met.

**STOT-repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

69-72-7 | salicylic acid

List II, III

**SECTION 12: Ecological information**

**12.1 Toxicity:**

**AQUATIC TOXICITY**

**1477-55-0 m-phenylenebis (methylamine)**

EC50, 24h | 35.1 mg/l (daphnia magna)

**12.2 Persistence and degradability:** No further relevant information available.

**12.3 Bioaccumulative potential:** No further relevant information available.

**12.4 Mobility in soil:** No further relevant information available.

**12.5 Results of PBT and vPvB assessment:**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.

**12.7 Other adverse effects:**

**ADDITIONAL ECOLOGICAL INFORMATION**

**General notes:**

Harmful to aquatic organisms.

Harmful to aquatic life with long lasting effects.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods:**

**Recommendation:**



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue:**

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 07 00	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 08*	other still bottoms and reaction residues
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

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**UNCLEANED PACKAGING****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**

**14.1 UN number or ID number**  
ADR, IMDG, IATA

UN2735

**14.2 UN proper shipping name**  
ADR, IMDG, IATA

AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamine)

**14.3 Transport hazard class(es)**  
ADR, IMDG, IATA



**Class**  
**Label**

8 Corrosive substances.  
8

**14.4 Packing group**  
ADR, IMDG, IATA

III

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user:**  
**Hazard identification number (Kemler code):**  
**EMS Number:**  
**Segregation groups**  
**Stowage Category**  
**Segregation Code**

Warning: Corrosive substances.  
80  
F-A,S-B  
(SGG18) Alkalis  
A  
SG35 Stow "separated from" SGG1-acids

**14.7 Maritime transport in bulk according to**  
**IMO instruments**

Not Regulated

**Transport/Additional information:****ADR**

**Limited quantities (LQ)**  
**Excepted quantities (EQ)**

1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

**Transport category**  
**Tunnel restriction code**

2  
E

**IMDG**

**Limited quantities (LQ)**  
**Excepted quantities (EQ)**

1L  
Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

See Section 2 for hazard identification.

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** None of the ingredients is listed.  
**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

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**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

**REGULATION (EU) 2019/1148**

**Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

**Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases:**

- 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.
- H361d Suspected of damaging the unborn child.
- H412 Harmful to aquatic life with long lasting effects.

**Department issuing SDS:**

Product Stewardship Department  
GCP Applied Technologies (UK) Limited  
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