

Revised: 20/9/2024

SAFETY DATA SHEET

This Safety Data Sheet is provided in compliance with the EC Regulations 1907/2006, 1272/2008, 2015/830 and 2020/878

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Product Name: RT111 PART B (CURING AGENT)
- UFI: 6E00-G02C-N00T-YEN9
- Product Part Number: RT111 PART B (CURING AGENT)

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

- Use of the substance/mixture: Curing agent

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Resintech Ltd
- Address of Supplier: Unit 1-2 Horcott Industrial Estate
Fairford
Gloucestershire
GL7 4BX
UK
- Telephone: +44 (0)1285 712755
- Responsible Person: Alex Paton
- Email: Info@resintech.co.uk

1.4 Emergency telephone number

- Emergency Telephone: +44 (0)1285712755 (Monday-Friday 8am-4.30pm)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

- CLP: Skin Sens. 1, Skin Corr. 1B, Aquatic Chronic 3

2.2 Label elements

- Signal Word: Danger
- Contains: 2-piperazin-1-ylethylamine.
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol.
TOFA, reaction products with TEPA.

Hazard statements

- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.

SECTION 2: Hazards identification (....)

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

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

P302+P352 - IF ON SKIN: Wash with plenty of soap and 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.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

Supplemental Hazard information (EU)

EUH210 - Safety data sheet available on request.

2.3 Other hazards

- Not a PBT according to REACH Annex XIII
- Substance not identified as having endocrine disrupting properties

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

	CAS Number	EC Number	REACH Registration Number	Categories	H Statements	Concentration
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	Not applicable	700-960-7	Not applicable	Skin Irrit. 2 Skin Sens. 1B Aquatic Chronic 3	H315 H317 H412	50 - 70%
2-piperazin-1-ylethylamine	140-31-8	205-411-0	Not applicable	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 3	H312 H302 H314 H317 H412	10 - 30%
TOFA, reaction products with TEPA	68953-36-6	273-201-6	Not applicable	Skin Irrit. 2 Skin Sens. 1 Eye Irrit. 2 STOT SE 3 Aquatic Chronic 2	H315 H317 H319 H335 H411	10 - 30%
3,6,9-triazaundecamethylenediamine; tetraethylenepentamine	112-57-2	203-986-2	Not applicable	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Aquatic Chronic 2	H312 H302 H314 H317 H411	<1%

SECTION 4: First aid measures**4.1 General**

- Use personal protective equipment as required.
- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
- Wash contaminated clothing before reuse.

Contact with eyes

SECTION 4: First aid measures (....)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes

Contact with skin

If skin irritation or rash occurs: Get medical advice/attention.
After contact with skin, wash immediately with plenty of soap and water
Take off contaminated clothing and wash it before reuse.

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious)
Get medical advice/attention if you feel unwell.
Do not induce vomiting

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Vapours or aerosols may cause irritation of eyes, nose and respiratory tract

4.2 Most important symptoms and effects, both acute and delayed

- Causes serious eye damage.
- May cause damage to the skin through repeated or prolonged exposure
- Vapours or aerosols may cause irritation of eyes, nose and respiratory tract

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically
 - In cases of severe exposure, allergic reaction in susceptible people may develop
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SECTION 5: Firefighting measures**5.1 Extinguishing media**

- In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

- Decomposition products may include toxic and irritant fumes
- Nitrogen and carbon oxides may be formed

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water
 - Prevent run off water from entering drains if possible
 - Wear Positive-Pressure Breathing Apparatus
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SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Wear protective clothing as per section 8
- Wash thoroughly after dealing with spillage
- Avoid contact with skin and eyes

6.2 Environmental precautions

- Avoid release to the environment.
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SECTION 6: Accidental release measures (....)

- Absorb spillage in suitable inert material
- Do not discharge into drains or the environment, dispose to an authorised waste collection point

6.3 Methods and material for containment and cleaning up

- Wear protective clothing as per section 8
- Absorb spillage in suitable inert material
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Wash thoroughly after dealing with spillage

6.4 Reference to other sections

- Wear protective clothing as per section 8
 - See Section 11 - Toxicological Information
-

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

- Avoid release to the environment.
- Wear protective clothing as per section 8
- Take off contaminated clothing and wash it before reuse.
- In cases of severe exposure, allergic reaction in susceptible people may develop
- Do not eat, drink or smoke when using this product.
- After contact with skin, wash immediately with plenty of soap and water
- Wash hands and working surfaces thoroughly after handling.
- Use good personal hygiene practices
- Wash contaminated clothing before reuse.
- Dispose of contents/container to an authorised waste collection point

7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed, in a cool, well ventilated place
- Keep cool. Protect from sunlight.
- Keep away from food, drink and animal feedingstuffs
- Protect from frost
- Store locked up.

7.3 Specific end use(s)

- See Section 1.2
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SECTION 8: Exposure controls/personal protection**8.1 Control parameters****2-piperazin-1-ylethylamine**

- DNEL (Industry; inhalational, long term systemic effects): 3.6 mg/m³
 - DNEL (Industry; inhalational, short term systemic effects): 21.4 mg/m³
 - DNEL (Industry; dermal, long term systemic effects): 3.33 mg/kg bw/day
 - DNEL (Industry; dermal, short term systemic effects): 20 mg/kg bw/day
 - DNEL (Industry; dermal, short term local effects): 0.04 mg/cm²
 - DNEL (Industry; dermal, long term local effects): 0.006 mg/cm²
 - DNEL (Consumer; dermal, long term local effects): 0.003 mg/cm²
 - DNEL (Consumer; dermal, long term systemic effects): 1.7 mg/kg/day
 - DNEL (Consumer; oral, short term systemic effects): 1.5 mg/kg/day
 - DNEL (Consumer; oral, short term local effects): 0.02 mg/cm²
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SECTION 8: Exposure controls/personal protection (....)

- DNEL (Consumer; oral, long term systemic effects): 0.3 mg/kg/day
 DNEL (Consumer; inhalational, short term systemic effects): 5.3 mg/m³
 DNEL (Consumer; inhalational, long term systemic effects): 0.9 mg/m³

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

- DNEL (Industry; inhalational, long term systemic effects): 1.41 mg/m³
 DNEL (Industry; dermal, long term systemic effects): 3.5 mg/kg bw/day
 DNEL (Consumer; inhalational, long term systemic effects): 0.348 mg/m³
 DNEL (Consumer; dermal, long term systemic effects): 1.67 mg/kg bw/day
 DNEL (Consumer; oral, long term systemic effects): 0.2 mg/kg bw/day

8.2 Exposure controls

- This Safety Data Sheet does not constitute a workplace risk assessment
- In case of inadequate ventilation wear respiratory protection.
- Eyewash bottles should be available
- Wear suitable protective clothing, eye/face protection and gloves
- Gloves should be chemical resistant and comply with an approved standard such as EN 455 or EN 374 and made from latex, nitrile or neoprene. Protective clothing should be based on the results of an exposure assessment. A polymer laminate apron is recommended in most cases. Eye and face protection should be chemical resistant and comply with an approved standard such as EN 166. If a respirator is needed following an exposure assessment it should conform to EN 136 or EN 143 (P3)
- Check with personal protection equipment manufacturer
- Use good personal hygiene practices
- Do not eat, drink or smoke when using this product.
- Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

- Appearance: Liquid
- Colour: Amber
- Odour: Phenol odour
- Boiling Point/Range: >200°C
- Flammability: Flash point: >100 °C (CC), Estimated Value
- pH: Not available
- Solubility in water: Partly soluble in water
- Density: Density (water=1): 0.99

9.2 Other information

- No information available

SECTION 10: Stability and reactivity**10.1 Reactivity**

SECTION 10: Stability and reactivity (....)

- Reference to other sections

10.2 Chemical stability

- Considered stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid

- No hazard expected under normal conditions of use

10.5 Incompatible materials

- Strong oxidising agent
- Strong acids

10.6 Hazardous decomposition products

- No hazardous decomposition products known
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SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Estimated LD₅₀ (oral) (ATE) : 2777.778 mg/kg
Estimated LD₅₀ (dermal) (ATE) : 6111.111 mg/kg
Estimated LD₅₀ (inhalational) (ATE) : >20 mg/l/4hr (gas/vapour)

2-piperazin-1-ylethylamine

LD₅₀ (oral, rat): 2,140 mg/kg
LD₅₀ (dermal, rabbit): 866 mg/kg

TOFA, reaction products with TEPA

LD₅₀ (oral, rat): 1,600 mg/kg
LD₅₀ (skin, rat): 1,700 mg/kg

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

LD₅₀ (oral, rat): >2,000 mg/kg
LC₅₀ (inhalation, rat): 5 mg/l/4h
LD₅₀ (skin, rat): >2,000 mg/kg

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes severe skin burns and eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

SECTION 11: Toxicological information (....)

Based on the available data, the classification criteria are not met

Carcinogenicity

Based on the available data, the classification criteria are not met

Reproductive toxicity

Based on the available data, the classification criteria are not met

STOT (specific target organ toxicity) - single exposure

Based on the available data, the classification criteria are not met

STOT (specific target organ toxicity) - repeated exposure

Based on the available data, the classification criteria are not met

Aspiration hazard

Based on the available data, the classification criteria are not met

11.2 Information on other hazards

- No information available

SECTION 12: Ecological information**12.1 Toxicity****2-piperazin-1-ylethylamine**

EC₅₀ (Daphnia magna): 58 mg/l (48 hr)
LC₅₀ (fish): 2.19 mg/l (96 hr)
PNEC (Fresh water): 0.058 mg/l
PNEC (intermittent): 0.58 mg/l
PNEC (Marine water): 0.0058 mg/l
PNEC (STP): 250 mg/l
PNEC (Sediment; fresh water): 215 mg/kg
PNEC (Sediment; marine water): 21.5 mg/kg

TOFA, reaction products with TEPA

LC₅₀ (fish): Unknown mg/l (96 hr)

3,6,9-triazaundecamethylenediamine; tetraethylenepentamine

IC₅₀ (algae): 2 mg/l (72 hr)
EC₅₀ (daphnia): 24 mg/l (48 hr)
LC₅₀ (fish): 420 mg/l (96 hr)

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol

EC₅₀ (daphnia): 51 mg/l (48 hr)
LC₅₀ (fish): 25.8 mg/l (96 hr)

SECTION 12: Ecological information (....)**Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol**

EC ₅₀ (Daphnia magna):	51 mg/l (48 hr)
LC ₅₀ (fish):	25 mg/l (96 hr)
PNEC (Fresh water):	0.014 mg/l
PNEC (intermittent):	0.14 mg/l
PNEC (Marine water):	0.0014 mg/l
PNEC (STP):	2.4 mg/l
PNEC (Sediment; fresh water):	1,064 mg/kg
PNEC (Sediment; marine water):	106.4 mg/kg

12.2 Persistence and degradability

- Not readily biodegradable

12.3 Bioaccumulative potential

- Bioaccumulation is insignificant

12.4 Mobility in soil

- miscible with water

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII

12.6 Endocrine disrupting properties

- Substance not identified as having endocrine disrupting properties

12.7 Other adverse effects

- No information available

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

- Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
- Wear protective clothing as per section 8
- Dispose of contents/container to an authorised waste collection point

SECTION 14: Transport information**14.1 UN number or ID number**

- UN No.: 1760

14.2 UN proper shipping name

- Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (N-aminoethylpiperazine solution)

14.3 Transport hazard class(es)

- Hazard Class: 8

14.4 Packing group

SECTION 14: Transport information (....)

- Packing Group: III

14.5 Environmental hazards

- Presents no hazard to the environment

14.6 Special precautions for user

- IMDG EmS: F-A, S-B
- Tunnel Code: (E)
- Emergency Action Code: 2X

14.7 Maritime transport in bulk according to IMO instruments

- Not applicable
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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- This Safety Data Sheet is provided in compliance with the Health and Safety at Work Act
- This Safety Data Sheet is provided in compliance with the EC Regulations 1907/2006, 1272/2008, 2015/830 and 2020/878

15.2 Chemical safety assessment

- This product is either exempt from REACH or does not meet the minimum volume threshold for a chemical safety assessment (CSA)
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SECTION 16: Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- 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. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H411: Toxic to aquatic life with long lasting effects. H412: Harmful to aquatic life with long lasting effects.

Sections updated: 1.1, 8.2

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