

Revised: 27/9/2024

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: RT183 PART B (CURING AGENT)
- UFI: KT10-K03Q-J00Q-JVYA
- Product Part Number: RT183 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, Aquatic Chronic 1

2.2 Label elements

- Signal Word: Warning
- Contains: 3-aminopropyldimethylamine

Hazard statements

- H317 - May cause an allergic skin reaction.
- H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

SECTION 2: Hazards identification (....)

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

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P273 - Avoid release to the environment.

P501 - Dispose of contents/container to an authorised waste collection point

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	M factor	Concentration
Silver	7440-22-4	231-131-3	01-2119555669-21-0000	Aquatic Acute 1 Aquatic Chronic 1	H400 H410	10 10	50 - 70%
Glass oxide; Glass	65997-17-3	266-046-0	Not applicable	Substance with a work place exposure limit	None	Not applicable	10 - 30%
Fatty acids, C18-unsatd., dimers, polymers with bisphenol A, epichlorohydrin, tall-oil fatty acids, tetraethylenepentamine and triethylenetetramine	106906-26-7	Not applicable	Not applicable	Aquatic Acute 1 Aquatic Chronic 1	H400 H410	10 1	8 - 20%
benzyl alcohol	100-51-6	202-859-9	01-2119492630-38-0000	Acute Tox. 4 Eye Irrit. 2 Acute Tox. 4	H302 H319 H332	Not applicable	2 - 8%
3-aminopropyldimethylamine	109-55-7	203-680-9	01-2119486842-27-0000	Flam. Liq. 3 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1	H226 H302 H314 H317	Not applicable	1 - 5%
2,4,6-tris(dimethylaminomethyl) phenol	90-72-2	202-013-9	01-2119560597-27-0000	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2	H302 H315 H319	Not applicable	1 - 5%
Amines, polyethylenepoly-, tetraethylenepentamine fraction	90640-66-7	292-587-7	01-2119487290-37-0000	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Eye Dam. 1 Aquatic Chronic 2	H302 H312 H314 H317 H318 H411	Not applicable	<1%
Bis[(diethylamino)methyl] phenol	71074-89-0	275-162-0	Not applicable	Skin Corr. 1B	H314	Not applicable	<1%

SECTION 3: Composition/information on ingredients (....)

Amines, polyethylenepoly-, triethylenetetramine fraction	90640-67-8	292-588-2	01-2119487919- 13-0000	Acute Tox. 4 Acute Tox. 4 Skin Corr. 1B Skin Sens. 1 Eye Dam. 1 Aquatic Chronic 3	H302 H312 H314 H317 H318 H412	Not applicable	<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

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.

Contact with skin

After contact with skin, wash immediately with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention.

Ingestion

Do NOT induce vomiting.
If swallowed, rinse mouth with water (only if the person is conscious)
Give water or milk to drink

Inhalation

Remove patient to fresh air
Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- In cases of severe exposure, allergic reaction in susceptible people may develop
- In cases of severe exposure, redness and irritation may develop

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

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
- Metal oxides
- Ammonia may be formed
- Nitrogen and carbon oxides may be formed

5.3 Advice for firefighters

SECTION 5: Firefighting measures (....)

- 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
-

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.
- 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
- Collect 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
- Store horizontally at <10°C

7.3 Specific end use(s)

- See Section 1.2

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****benzyl alcohol**

DNEL (Industry; inhalational, long term systemic effects): 22 mg/m³
DNEL (Industry; inhalational, short term systemic effects): 110 mg/m³
DNEL (Industry; dermal, long term systemic effects): 8 mg/kg bw/day
DNEL (Industry; dermal, short term systemic effects): 40 mg/kg bw/day
DNEL (Consumer; dermal, long term systemic effects): 4 mg/kg bw/day
DNEL (Consumer; dermal, short term systemic effects): 20 mg/kg bw/day
DNEL (Consumer; inhalational, long term systemic effects): 5.4 mg/m³
DNEL (Consumer; inhalational, short term systemic effects): 27 mg/m³
DNEL (Consumer; oral, long term systemic effects): 4 mg/kg bw/day
DNEL (Consumer; oral, short term systemic effects): 20 mg/kg bw/day

3-aminopropyldimethylamine

DNEL (Industry; inhalational, long term systemic effects): 1.2 mg/m³

2,4,6-tris(dimethylaminomethyl)phenol

DNEL (Industry; inhalational, long term systemic effects): 0.53 mg/m³
DNEL (Industry; inhalational, short term systemic effects): 2.1 mg/m³
DNEL (Industry; dermal, long term systemic effects): 0.15 mg/kg bw/day
DNEL (Industry; dermal, short term systemic effects): 0.6 mg/kg bw/day
DNEL (Consumer; inhalational, long term systemic effects): 0.13 mg/m³
DNEL (Consumer; dermal, long term systemic effects): 0.075 mg/kg bw/day
DNEL (Consumer; oral, long term systemic effects): 0.075 mg/kg bw/day

Amines, polyethylenepoly-, tetraethylenepentamine fraction

DNEL (Industry; inhalational, long term systemic effects): 0.82 mg/m³
DNEL (Industry; dermal, long term local effects): 0.25 mg/cm²
DNEL (Consumer; inhalational, long term systemic effects): 0.14 mg/m³
DNEL (Consumer; dermal, long term local effects): 0.02 mg/cm²
DNEL (Consumer; oral, long term systemic effects): 0.21 mg/kg bw/day

Amines, polyethylenepoly-, triethylenetetramine fraction

DNEL (Industry; inhalational, long term systemic effects): 0.54 mg/m³
DNEL (Consumer; inhalational, long term systemic effects): 0.096 mg/m³
DNEL (Consumer; oral, long term systemic effects): 0.14 mg/kg bw/day

Glass oxide; Glass

WEL (inhalable dust): 10 mg/m³ (8 hour TWA)

Silver

WEL: 0.1 mg/m³ (8 hour TWA)

8.2 Exposure controls

SECTION 8: Exposure controls/personal protection (....)

- 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: Paste
- Colour: Silver
- Odour: Characteristic odour
- Boiling Point/Range: >200°C
- Flammability: Flash point: >150 °C (CC)
- pH: Immiscible with water
- Solubility in water: Immiscible with water
- Density: Density (water=1): 2.76

9.2 Other information

- No information available

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

- Reference to other sections
- Reacts with nitrous acid, nitrites

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
- Keep away from heat

10.5 Incompatible materials

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

- Strong oxidising agent
- Strong acids
- Incompatible with organic peroxides

10.6 Hazardous decomposition products

- No hazardous decomposition products known

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

Estimated LD₅₀ (oral) (ATE) : 4746.49 mg/kg
Estimated LD₅₀ (dermal) (ATE) : >4000 mg/kg
Estimated LD₅₀ (inhalational) (ATE) : 196.3094 mg/l/4hr (gas/vapour)

benzyl alcohol

LD₅₀ (dermal, rabbit): >2,000 mg/kg
LC₅₀ (inhalation, rat): 4.178 mg/l/4h
LD₅₀ (oral, rat): 1,620 mg/kg

Fatty acids, C18-unsatd., dimers, polymers with bisphenol A, epichlorohydrin, tall-oil fatty acids, tetraethylenepentamine and triethylenetetramine

LD₅₀ (oral, rat): >2,000 mg/kg

3-aminopropyldimethylamine

LD₅₀ (oral, rat): 410 mg/kg
LD₅₀ (skin, rat): 1,100 mg/kg

2,4,6-tris(dimethylaminomethyl)phenol

LD₅₀ (oral, rat): 2,619 mg/kg

Amines, polyethylenepoly-, tetraethylenepentamine fraction

LD₅₀ (oral, rat): 1,716 mg/kg
LD₅₀ (dermal, rabbit): 1,260 mg/kg

Amines, polyethylenepoly-, triethylenetetramine fraction

LD₅₀ (oral, rat): 1,861 mg/kg
LD₅₀ (dermal, rabbit): 1,720 mg/kg

Glass oxide; Glass

Estimated LD₅₀ (dermal) (ATE) : >5,000 mg/kg
Estimated LD₅₀ (oral) (ATE) : >5,000 mg/kg

Silver

LD₅₀ (oral, rat): >2,000 mg/kg
LC₅₀ (inhalation, rat): >5.16 mg/l/4h

SECTION 11: Toxicological information (....)

LD₅₀ (skin, rat): >2,000 mg/kg

**Bis[(diethylamino)methyl]
phenol**

Estimated LD₅₀ (dermal) (ATE) : >2,000 mg/kg

Estimated LD₅₀ (oral) (ATE) : >2,000 mg/kg

Skin corrosion/irritation

May cause irritation

Serious eye damage/irritation

May cause irritation

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

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****benzyl alcohol**

EC₅₀ (Daphnia magna): 230 mg/l (48 hr)

LC₅₀ (fish): 460 mg/l (96 hr)

PNEC (Fresh water): 1.02 mg/l

PNEC (intermittent): 2.3 mg/l

SECTION 12: Ecological information (....)

PNEC (Marine water):	0.102 mg/l
PNEC (STP):	39 mg/l
PNEC (Sediment; fresh water):	5.27 mg/kg
PNEC (Sediment; marine water):	0.527 mg/kg

Fatty acids, C18-unsatd., dimers, polymers with bisphenol A, epichlorohydrin, tall-oil fatty acids, tetraethylenepentamine and triethylenetetramine

EC₅₀ (daphnia): 0.048 mg/l (48 hr)

3-aminopropyldimethylamine

EC ₅₀ (Daphnia magna):	25 mg/l (48 hr)
IC ₅₀ (algae):	26 mg/l (72 hr)
LC ₅₀ (fish):	122 mg/l (96 hr)
PNEC (Fresh water):	0.072 mg/l
PNEC (intermittent):	340 mg/l
PNEC (Marine water):	0.0072 mg/l
PNEC (STP):	10 mg/l
PNEC (Sediment; fresh water):	0.735 mg/kg
PNEC (Sediment; marine water):	0.0735 mg/kg

2,4,6-tris(dimethylaminomethyl)phenol

EC ₅₀ (Daphnia magna):	100 mg/l (48 hr)
IC ₅₀ (algae):	84 mg/l (72 hr)
LC ₅₀ (fish):	175 mg/l (96 hr)
PNEC (Fresh water):	0.046 mg/l
PNEC (intermittent):	0.46 mg/l
PNEC (Marine water):	0.0046 mg/l
PNEC (STP):	0.2 mg/l
PNEC (Sediment; fresh water):	0.262 mg/kg
PNEC (Sediment; marine water):	0.026 mg/kg

Amines, polyethylenepoly-, tetraethylenepentamine fraction

EC ₅₀ (Daphnia magna):	24.1 mg/l (48 hr)
LC ₅₀ (fish):	420 mg/l (48 hr)
PNEC (Fresh water):	0.01 mg/l
PNEC (intermittent):	0.068 mg/l
PNEC (Marine water):	0.001 mg/l
PNEC (STP):	4.6 mg/l
PNEC (Sediment; fresh water):	3.198 mg/kg
PNEC (Sediment; marine water):	0.3198 mg/kg

Amines, polyethylenepoly-, triethylenetetramine fraction

SECTION 12: Ecological information (....)

EC₅₀ (Daphnia magna): 31.1 mg/l (48 hr)
LC₅₀ (fish): 330 mg/l (96 hr)
PNEC (Fresh water): 0.0268 mg/l
PNEC (intermittent): 0.2 mg/l
PNEC (Marine water): 0.00268 mg/l
PNEC (Sediment; fresh water): 8.572 mg/kg
PNEC (Sediment; marine water): 0.8572 mg/kg

Bis[(diethylamino)methyl]phenol

LC₅₀ (fish): >100 mg/l (96 hr), Estimated Value

Glass oxide; Glass

IC₅₀ (algae): >1,000 mg/l (72 hr)
EC₅₀ (daphnia): >1,000 mg/l (48 hr)
LC₅₀ (fish): >1,000 mg/l (96 hr)

Silver

EC₅₀ (daphnia): 0.00022 mg/l (48 hr)
LC₅₀ (fish): 0.0012 mg/l (96 hr)

12.2 Persistence and degradability

- Not readily biodegradable

12.3 Bioaccumulative potential

- Bioaccumulation is insignificant

12.4 Mobility in soil

- immiscible 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

SECTION 14: Transport information (....)**14.1 UN number or ID number**

- UN No.: 3082

14.2 UN proper shipping name

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver mixture)

14.3 Transport hazard class(es)

- Hazard Class: 9

14.4 Packing group

- Packing Group: III

14.5 Environmental hazards

- Marine Pollutant

14.6 Special precautions for user

- IMDG EmS: F-A, S-F
- Tunnel Code: (E)
- Emergency Action Code: 3Z

14.7 Maritime transport in bulk according to IMO instruments

- Not applicable

14.8 Transport Regulations

- Special Provisions Apply: (IATA: A197), (ADR: 375) These substances when transported in single or combination packages containing a net quantity per single or inner packaging of 5L or less for liquids or having a net weight per single or inner packaging of 5KG or less for solids, are not subject to any other provisions of these regulations provided the packages meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8
-

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)
-

SECTION 16: Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- H226: Flammable liquid and vapour. 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. H319: Causes serious eye irritation. H411: Toxic to aquatic life with long lasting effects.

Sections updated: 1.1, 8.2, 14.8

This information relates only to the 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 themselves as to the suitability of such information for their own use.

SECTION 16: Other information (....)