Safety Data Sheet according to (EC) No 1907/2006

sds no. : 298562
V005.0

Loctite 3430A Kit component

Revision: 15.01.2013
printing date: 20.05.2013

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

1.1. Product identifier
Loctite 3430A Kit component

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Epoxy adhesive

1.3. Details of the supplier of the safety data sheet
Henkel Ireland
Operations and Research Limited
Tallaght Business Park
Dublin 24

Ireland

Phone: +353 (14046444)
Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):
Sensitizing
R43 May cause sensitisation by skin contact.
Xi - Irritant
R36/38 Irritating to eyes and skin.
N - Dangerous for the environment
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements (DPD):

Xi - Irritant

N - Dangerous for the environment

Risk phrases:

R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and soap.
S37 Wear suitable gloves.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:

Contains epoxy constituents. See information supplied by the manufacturer.
For consumer use only: S2 Keep out of the reach of children
S46 If swallowed, seek medical advice immediately and show this container or label.

Contains:

Bisphenol-A epichlorhydrin resin MW <= 700,
RP Bisphenol F-epichlorohydrin resin, MW<=700,
Bisphenol A diglycidyl ether polymer

2.3. Other hazards

None if used properly.

SECTION 3: Composition/information on ingredients

General chemical description:

Epoxy resin

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	500-033-5 500-033-5 01-2119456619-26	30- 40 %	Skin sensitizer 1 H317 Chronic hazards to the aquatic environment 2 H411 Serious eye irritation 2 H319 Skin irritation 2 H315
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4		30- 40 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Skin sensitizer 1 H317 Chronic hazards to the aquatic environment 2 H411
Bisphenol A diglycidyl ether polymer 25085-99-8		20- 30 %	Serious eye irritation 2 H319 Skin irritation 2 H315 Skin sensitizer 1 H317 Chronic hazards to the aquatic environment 2 H411

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	500-033-5 500-033-5 01-2119456619-26	30 - 40 %	R43 Xi - Irritant; R36/38 N - Dangerous for the environment; R51/53
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4		30 - 40 %	Xi - Irritant; R36/38, R43 N - Dangerous for the environment; R51/53
Bisphenol A diglycidyl ether polymer 25085-99-8		20 - 30 %	N - Dangerous for the environment; R51/53 Xi - Irritant; R36/38, R43

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap.
Seek medical advice.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:
Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed
SKIN: Rash, Urticaria.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
Do not expose to direct heat.
Oxides of carbon, oxides of nitrogen, irritating organic vapors.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid skin and eye contact.
Ensure adequate ventilation.

6.2. Environmental precautions
Do not let product enter drains.

6.3. Methods and material for containment and cleaning up
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Wash spillage site thoroughly with soap and water or detergent solution.
Dispose of contaminated material as waste according to Chapter 13.

6.4. Reference to other sections
See advice in chapter 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Use only in well-ventilated areas.
Avoid skin and eye contact.
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.
See advice in chapter 8

Hygiene measures:
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities
Store in a cool, well-ventilated place.

7.3. Specific end use(s)
Epoxy adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (freshwater)					3 µg/L	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (marine water)					0,3 µg/L	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	STP					10 mg/L	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (freshwater)				0,5 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (marine water)				0,5 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (intermittent releases)					0,013 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	dermal	Acute/short term exposure - systemic effects		8,3 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	inhalation	Acute/short term exposure - systemic effects		12,3 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	dermal	Long term exposure - systemic effects		8,3 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	inhalation	Long term exposure - systemic effects		12,3 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	dermal	Acute/short term exposure - systemic effects		3,6 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	inhalation	Acute/short term exposure - systemic effects		0,75 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	oral	Acute/short term exposure - systemic effects		0,75 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	dermal	Long term exposure - systemic effects		3,6 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	inhalation	Long term exposure - systemic effects		0,75 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	oral	Long term exposure - systemic effects		0,75 mg/kg bw/day	

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Tightly fitting safety goggles

Skin protection:
Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid liquid transparent
Odor	odorless
Odour threshold	No data available / Not applicable
pH	Not applicable
Initial boiling point	No data available / Not applicable
Flash point	> 100,0 °C (> 212 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density ()	1,17 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Not miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with strong acids.
Reacts with strong oxidants.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
None if used for intended purpose.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:
May cause irritation to the digestive tract.

Inhalative toxicity:
May cause irritation to respiratory system.

Skin irritation:
Irritating to the skin.

Eye irritation:
Irritating to eyes.

Sensitizing:
May cause sensitization by skin contact.

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)

SECTION 12: Ecological information

General ecological information:

The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:

Toxic to aquatic organisms

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

Do not empty into drains / surface water / ground water.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	LC50	1,750000 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)

12.2. Persistence and degradability

Persistence and Biodegradability:

No data available for the product.

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:

Cured adhesives are immobile.

Bioaccumulative potential:

No data available for the product.

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Bisphenol-A epichlorhydrin resin MW <= 700 25068-38-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.
Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

ADR	3082
RID	3082
ADNR	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-F Epichlorhydrin resin,Bisphenol-A Epichlorhydrin resin)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-F Epichlorhydrin resin,Bisphenol-A Epichlorhydrin resin)
ADNR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-F Epichlorhydrin resin,Bisphenol-A Epichlorhydrin resin)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-F Epichlorhydrin resin,Bisphenol-A Epichlorhydrin resin)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-F Epichlorhydrin resin,Bisphenol-A Epichlorhydrin resin)

14.3. Transport hazard class(es)

ADR	9
	9
RID	9
	9
ADNR	9
	9
IMDG	9
	9
IATA	9
	9

14.4. Packaging group

ADR	III
RID	III
ADNR	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADNR	not applicable
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
	Tunnelcode: (E)
RID	not applicable
ADNR	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content < 3,00 %
(2004/42/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.

Safety Data Sheet according to (EC) No 1907/2006

sds no. : 205861
V003.0

Loctite 3430B Kit component

Revision: 02.01.2013
printing date: 20.05.2013

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

1.1. Product identifier
Loctite 3430B Kit component

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Epoxy Hardener

1.3. Details of the supplier of the safety data sheet
Henkel Ireland
Operations and Research Limited
Tallaght Business Park
Dublin 24

Ireland

Phone: +353 (14046444)
Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):
Xi - Irritant
R36/38 Irritating to eyes and skin.
Sensitizing
R43 May cause sensitisation by skin contact.
Dangerous for the environment
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements (DPD):

Xi - Irritant

Risk phrases:
R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water and soap.
S37 Wear suitable gloves.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Additional labeling:
For consumer use only: S2 Keep out of the reach of children
S46 If swallowed, seek medical advice immediately and show this container or label.

Contains:
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine~

2.3. Other hazards
None if used properly.

SECTION 3: Composition/information on ingredients

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7	239-044-2	10- 15 %	Chronic hazards to the aquatic environment 2 H411 Acute toxicity 4 H302+H332
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine~ 10563-29-8	234-148-4	1- < 10 %	Acute toxicity 4; Oral H302 Acute toxicity 4; Dermal H312 Skin corrosion 1B H314 Skin sensitizer 1; Dermal H317
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	224-207-2	1- 5 %	Skin corrosion 1B H314

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7	239-044-2	10 - 15 %	Xn - Harmful; R20, R22 N - Dangerous for the environment; R51/53
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine~ 10563-29-8	234-148-4	1 - < 10 %	C - Corrosive; R34 Xn - Harmful; R21/22 Xi - Irritant; R43
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	224-207-2	1 - 5 %	C - Corrosive; R34

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air.
In case of adverse health effects seek medical advice.

Skin contact:
Rinse with running water and soap.
Seek medical advice.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

Ingestion:
Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Seek medical advice.

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
None known

5.2. Special hazards arising from the substance or mixture

Do not expose to direct heat.
carbon oxides.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.
Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.
Avoid skin and eye contact.
Wear protective equipment.

6.2. Environmental precautions
Do not let product enter drains.

6.3. Methods and material for containment and cleaning up
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
Dispose of contaminated material as waste according to Chapter 13.

6.4. Reference to other sections
See advice in chapter 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin and eye contact.
Use only in well-ventilated areas.
Gloves and safety glasses should be worn
Do not inhale vapors and fumes.

Hygiene measures:
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities
Store in sealed original container.
Store in a cool, well-ventilated place.

7.3. Specific end use(s)
Epoxy Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

None

Biological Exposure Indices:
None

8.2. Exposure controls:

Respiratory protection:
Ensure adequate ventilation.
Do not inhale vapors and fumes.

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Tightly fitting safety goggles
Avoid eye contact.

Skin protection:
Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid Clear
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	> 100,0 °C (> 212 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density ()	1,1 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Acetone)	Soluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with strong acids.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Stable under normal conditions of storage and use.
Avoid contact with acids and oxidizing agents.
Avoid contact with water.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
None if used for intended purpose.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:
May cause irritation to the digestive tract.

Skin irritation:
Irritating to the skin.

Eye irritation:
Irritating to eyes.

Sensitizing:
May cause sensitization by skin contact.

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	corrosive		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.
The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:
Harmful to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7	EC50	1,7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine~ 10563-29-8	EC50	9,2 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	LC50	215 - 464 mg/l	Fish	96 h	Leuciscus idus	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	EC50	218 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	EC50	666 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7			< 10 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine~ 10563-29-8	readily biodegradable		100 %	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:
Cured adhesives are immobile.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7	0,66					

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code
08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.4. Packaging group

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content (2004/42/EC)	< 25 % (As defined in the Council Directive 2004/42/EC)

15.2. Chemical safety assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

R20 Harmful by inhalation.
R21/22 Harmful in contact with skin and if swallowed.
R22 Also harmful if swallowed.
R34 Causes burns.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302 Harmful if swallowed.
H302+H332 Harmful if swallowed or if inhaled.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.