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

SDS No. : 178207
V002.0

LOCTITE EA 3430 known as Loctite 3430

Revision: 07.09.2017
printing date: 19.02.2020
Replaces version from: 15.05.2017

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

1.1. Product identifier
LOCTITE EA 3430 known as Loctite 3430

Contains:
Epoxy resin (number average molecular weight ≤ 700)
Bisphenol-F epichlorhydrin resin; MW<700
Bisphenol A diglycidyl ether polymer

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 Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.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 (CLP):

Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Warning

Hazard statement:
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.

Precautionary statement:
"***" ***For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of waste and residues in accordance with local authority requirements***

Precautionary statement: Prevention
P273 Avoid release to the environment.
P280 Wear protective gloves.

Precautionary statement: Response
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards
None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	500-033-5 500-033-5 01-2119456619-26	20- 40 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	500-006-8 500-006-8 01-2119454392-40	20- 40 %	Skin Irrit. 2; Dermal H315 Skin Sens. 1A H317 Aquatic Chronic 2 H411
Bisphenol A diglycidyl ether polymer 25085-99-8		20- 40 %	Eye Irrit. 2 H319 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Chronic 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.

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.
Obtain medical attention if irritation persists.

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
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.
Do not expose to direct heat.

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

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

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

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

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 Section 13.

6.4. Reference to other sections
See advice in section 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 section 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.
Refer to Technical Data Sheet

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

Occupational Exposure Limits

Valid for
Ireland

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)		0,006 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (marine water)		0,001 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (intermittent releases)		0,018 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (freshwater)				0,996 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (marine water)				0,1 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	soil				0,196 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	oral				11 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	aqua (freshwater)		0,003 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	aqua (marine water)		0,0003 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	sediment (freshwater)				0,294 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	sediment (marine water)				0,0294 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	soil				0,237 mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	aqua (intermittent releases)		0,0254 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	Workers	dermal	Acute/short term exposure - systemic effects		8,33 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	Inhalation	Acute/short term exposure - systemic effects		12,25 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	dermal	Long term exposure - systemic effects		8,33 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	Inhalation	Long term exposure - systemic effects		12,25 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		3,571 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	dermal	Long term exposure - systemic effects		3,571 mg/kg	
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	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	Acute/short term exposure - systemic effects		0,75 mg/kg	
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	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	Workers	dermal	Acute/short term exposure - local effects		0,0083 mg/cm2	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	Workers	dermal	Long term exposure - systemic effects		104,15 mg/kg	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	Workers	Inhalation	Long term exposure - systemic effects		29,39 mg/m3	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	General population	dermal	Long term exposure - systemic effects		62,5 mg/kg	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	General population	Inhalation	Long term exposure - systemic effects		8,7 mg/m3	
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 9003-36-5	General population	oral	Long term exposure - systemic effects		6,25 mg/kg	

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 (EN 14387)

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
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid liquid transparent
Odor	odourless
Odour threshold	No data available / Not applicable
pH	Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	> 200 °C (> 392 °F)
Flash point	> 100,0 °C (> 212 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Relative vapour density:	No data available / Not applicable
Density	1,17 g/cm3

()

Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Not miscible
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity (Cone and plate; 25 °C (77 °F); speed of rotation: 1 min-1; Shear gradient: 10 s-1)	19.000 - 25.000 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	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
See section reactivity.

10.6. Hazardous decomposition products
carbon oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. 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:
Causes skin irritation.

Eye irritation:
Causes serious eye irritation.

Sensitizing:
May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 420 (Acute Oral Toxicity)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Bisphenol A diglycidyl ether polymer 25085-99-8	LD50	> 2.000 mg/kg	oral		rat	not specified

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	LD50	> 2.000 mg/kg	dermal		rat	not specified
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Bisphenol A diglycidyl ether polymer 25085-99-8	LD50	> 2.000 mg/kg	dermal		rabbit	not specified

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	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
Epoxy resin (number average molecular weight ≤ 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)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	negative	oral: gavage		mouse	not specified
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure timeFrequency of treatment	Route of application	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	not carcinogenic	mouse	male	2 y daily	dermal	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	not carcinogenic	rat	male/female	2 y daily	oral: gavage	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	NOAEL P = >= 50 mg/kg NOAEL F1 = >= 750 mg/kg NOAEL F2 = >= 750 mg/kg	Two generation study oral: gavage	238 d	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	NOAEL=50 mg/kg	oral: gavage	14 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	NOAEL=250 mg/kg	oral: gavage	13 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12: Ecological information

General ecological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:
Do not empty into drains / surface water / ground water.
Toxic to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	LC50	1,75 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	EC50	1,7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	EC50	> 11 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	4,2 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	IC50	> 100 mg/l	Bacteria	3 h	activated sludge, industrial	other guideline:
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	NOEC	0,3 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	EC50	1,6 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	EC50	1,8 mg/l	Algae	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	NOEC	0,3 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	LC 50	1,5 - 7,7 mg/l	Fish	96 h	Trout family (Salmonidae)	

12.2. Persistence and degradability

Persistence and Biodegradability:
No data available for the product.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6		aerobic	5 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5		aerobic	5 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:
Cured adhesives are immobile.

Bioaccumulative potential:
No data available for the product.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	3,242				25 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	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.
Collection and delivery to recycling enterprise or other registered elimination institution.

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
ADN	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)
ADN	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
RID	9
ADN	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

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

14.6. Special precautions for user

ADR	not applicable Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

14.7. Transport in bulk according to Annex II of Marpol 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:

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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.

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

SDS No. : 205861
V002.0

LOCTITE EA 3430 known as Loctite 3430

Revision: 07.09.2017
printing date: 19.02.2020
Replaces version from: 28.06.2017

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

1.1. Product identifier

LOCTITE EA 3430 known as Loctite 3430

Contains:

3,3'-Oxybis(ethyleneoxy)bis(propylamine)
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine
Epoxy resin (number average molecular weight ≤ 700)

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 Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.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 (CLP):

Skin corrosion	Category 1A
H314 Causes severe skin burns and eye damage.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Signal word:	Danger
Hazard statement:	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 statement:	"***" ***For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of waste and residues in accordance with local authority requirements***
Precautionary statement: Prevention	P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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- 20 %	Aquatic Chronic 2 H411 Acute Tox. 4; Oral H302 Acute Tox. 4 H332
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	224-207-2 01-2119963377-26	5- < 10 %	Skin Corr. 1B H314 Skin Sens. 1 H317
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	234-148-4 01-2119970376-29	5- < 10 %	Acute Tox. 4; Oral H302 Skin Corr. 1A H314 Skin Sens. 1B H317
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	500-033-5 500-033-5 01-2119456619-26	1- < 5 %	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Benzyldimethylamine 103-83-3	203-149-1 01-2119529232-48	0,1- < 1 %	Acute Tox. 4 H312 Skin Corr. 1B H314 Flam. Liq. 3 H226 Aquatic Chronic 2 H411 Acute Tox. 4 H302 Acute Tox. 3 H331

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.

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.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

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.
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.

5.3. Advice for firefighters
Wear self-contained breathing apparatus.
Wear protective equipment.

Additional information:
In case of fire, keep containers cool with water spray.

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 empty into drains / surface water / ground water.

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.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in section 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.
See advice in section 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 sealed original container.
Store in a cool, well-ventilated place.
Refer to Technical Data Sheet

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

Occupational Exposure Limits

Valid for
Ireland

None

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	aqua (freshwater)		0,22 mg/l				
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	aqua (marine water)		0,022 mg/l				
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	aqua (intermittent releases)		2,2 mg/l				
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	sewage treatment plant (STP)		125 mg/l				
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	sediment (freshwater)				1,1 mg/kg		
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	sediment (marine water)				0,11 mg/kg		
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	soil				0,091 mg/kg		
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	aqua (freshwater)		9,2 µg/l				
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	aqua (marine water)		0,92 µg/l				
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	aqua (intermittent releases)		92 µg/l				
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	Sewage treatment plant		18,1 mg/l				
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	sediment (freshwater)				0,0336 mg/kg		
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	sediment (marine water)				0,00336 mg/kg		
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	soil				0,00132 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (freshwater)		0,006 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (marine water)		0,001 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (intermittent releases)		0,018 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (freshwater)				0,996 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (marine water)				0,1 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	soil				0,196 mg/kg		
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	oral				11 mg/kg		

Benzyldimethylamine 103-83-3	aqua (freshwater)		0,0048 mg/l				
Benzyldimethylamine 103-83-3	aqua (marine water)		0,00048 mg/l				
Benzyldimethylamine 103-83-3	aqua (intermittent releases)		0,0134 mg/l				
Benzyldimethylamine 103-83-3	sewage treatment plant (STP)		534 mg/l				
Benzyldimethylamine 103-83-3	sediment (freshwater)				0,071 mg/kg		
Benzyldimethylamine 103-83-3	sediment (marine water)				0,0071 mg/kg		
Benzyldimethylamine 103-83-3	soil				0,0114 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	Workers	inhalation	Long term exposure - systemic effects		59 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	Workers	inhalation	Acute/short term exposure - systemic effects		176 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	Workers	inhalation	Long term exposure - local effects		13 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	Workers	dermal	Long term exposure - systemic effects		8,3 mg/kg	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	General population	inhalation	Long term exposure - systemic effects		17 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	General population	inhalation	Acute/short term exposure - systemic effects		52 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	General population	inhalation	Long term exposure - local effects		0,5 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	General population	inhalation	Acute/short term exposure - local effects		6,5 mg/m3	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	General population	dermal	Long term exposure - systemic effects		5 mg/kg	
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	General population	oral	Long term exposure - systemic effects		5 mg/kg	
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	Workers	inhalation	Long term exposure - systemic effects		0,35 mg/m3	
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	Workers	dermal	Long term exposure - systemic effects		0,05 mg/kg	
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	General population	inhalation	Long term exposure - systemic effects		0,65 mg/m3	
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	General population	oral	Long term exposure - systemic effects		0,2 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	dermal	Acute/short term exposure - systemic effects		8,33 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	Inhalation	Acute/short term exposure - systemic effects		12,25 mg/m3	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	dermal	Long term exposure - systemic effects		8,33 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Workers	Inhalation	Long term exposure - systemic effects		12,25 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		3,571 mg/kg	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	General population	dermal	Long term exposure - systemic effects		3,571 mg/kg	
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	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	Acute/short term exposure - systemic effects		0,75 mg/kg	
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	
Benzyldimethylamine 103-83-3	Workers	dermal	Long term exposure - systemic effects		2,3 mg/kg	
Benzyldimethylamine 103-83-3	Workers	inhalation	Long term exposure - systemic effects		14,6 mg/m3	
Benzyldimethylamine 103-83-3	Workers	inhalation	Long term exposure - local effects		1 mg/m3	
Benzyldimethylamine 103-83-3	General population	dermal	Long term exposure - systemic effects		1,25 mg/kg	
Benzyldimethylamine 103-83-3	General population	oral	Long term exposure - systemic effects		1,25 mg/kg	
Benzyldimethylamine 103-83-3	General population	inhalation	Long term exposure - systemic effects		43,75 mg/m3	

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 (EN 14387)

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:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid liquid Clear
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	> 230 °C (> 446 °F)
Flash point	> 100,0 °C (> 212 °F); no method
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure (50 °C (122 °F))	< 700 mbar
Relative vapour density:	No data available / Not applicable
Density ()	1,1 g/cm3
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Acetone)	Soluble
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity (Cone and plate; 25 °C (77 °F); Shear gradient: 10 s-1)	19.000 - 26.000 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	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
No decomposition if used according to specifications.
Avoid contact with acids and oxidizing agents.
Avoid contact with water.

10.5. Incompatible materials
See section reactivity.

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 mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Skin irritation:
Causes severe skin burns and eye damage.

Eye irritation:
Corrosive
Avoid eye contact.

Sensitizing:
May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7	LD50	835 mg/kg	oral		rat	not specified
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	LD50	3.160 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	LD50	1.669 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 420 (Acute Oral Toxicity)
Benzyldimethylamine 103-83-3	LD50	579 mg/kg	oral		rat	not specified

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Benzyldimethylamine 103-83-3	LC50	2,052 mg/l		4 h	rat	not specified

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	Acute toxicity estimate (ATE)	2.500 mg/kg	dermal			Expert judgement
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	LD50	> 2.150 mg/kg			rat	OECD Guideline 402 (Acute Dermal Toxicity)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	LD50	> 2.000 mg/kg	dermal		rat	not specified

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)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Epoxy resin (number average molecular weight ≤ 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
Epoxy resin (number average molecular weight ≤ 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
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Epoxy resin (number average molecular weight ≤ 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)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	negative	oral: gavage		mouse	not specified

Carcinogenicity:

Hazardous components CAS-No.	Result	Species	Sex	Exposure timeFrequency of treatment	Route of application	Method
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	not carcinogenic	mouse	male	2 y daily	dermal	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	not carcinogenic	rat	male/female	2 y daily	oral: gavage	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	NOAEL P = 600 mg/kg	screening oral: gavage		rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	NOAEL P = >= 50 mg/kg NOAEL F1 = >= 750 mg/kg NOAEL F2 = >= 750 mg/kg	Two generation study oral: gavage	238 d	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	NOAEL=< 100 mg/kg	oral: gavage	59 daysdaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	NOAEL=50 mg/kg	oral: gavage	14 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

SECTION 12: Ecological information

General ecological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:
Do not empty into drains / surface water / ground water.
Harmful to aquatic life with long lasting effects.

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)
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	LC50	> 215 - 464 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	EC50	218 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	EC50	666 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
	NOEC	15,6 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	EC10	152,5 mg/l	Bacteria	17 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-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)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	LC50	1,75 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	EC50	1,7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	EC50	> 11 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	4,2 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	IC50	> 100 mg/l	Bacteria	3 h	activated sludge, industrial	other guideline:
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	NOEC	0,3 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Benzyldimethylamine 103-83-3	LC50	37,8 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Benzyldimethylamine 103-83-3	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Benzyldimethylamine 103-83-3	EC50	1,34 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
	NOEC	0,24 mg/l	Algae	72 h	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Benzyldimethylamine 103-83-3	EC10	534 mg/l	Bacteria	17 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
Benzyldimethylamine 103-83-3	NOEC	0,789 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

12.2. Persistence and degradability

Persistence and Biodegradability:
The product is not biodegradable.

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)
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	not inherently biodegradable	aerobic	< 20 %	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
	not readily biodegradable.	aerobic	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution 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)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6		aerobic	5 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Benzyldimethylamine 103-83-3	not readily biodegradable.	aerobic	0 - 2 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:
Cured adhesives are immobile.

Bioaccumulative potential:
No data available.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) 14970-87-7	0,66					not specified
3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	-1,25				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	-0,47				25 °C	other (calculated)
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	3,242				25 °C	EU Method A.8 (Partition Coefficient)
Benzyldimethylamine 103-83-3		> 2,1 - 22	42 d	Cyprinus carpio		OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
Benzyldimethylamine 103-83-3	1,98					EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

3,3'-Oxybis(ethyleneoxy)bis(propylamine) 4246-51-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine 10563-29-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Epoxy resin (number average molecular weight ≤ 700) 25068-38-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Benzyldimethylamine 103-83-3	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:
Collection and delivery to recycling enterprise or other registered elimination institution.
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
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	2735
RID	2735
ADN	2735
IMDG	2735
IATA	2735

14.2. UN proper shipping name

ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (N,N'-Dimethyldipropyltriamine,3,3'-oxybis(ethyleneoxy)bis(propylamine))
RID	AMINES, LIQUID, CORROSIVE, N.O.S. (N,N'-Dimethyldipropyltriamine,3,3'-oxybis(ethyleneoxy)bis(propylamine))
ADN	AMINES, LIQUID, CORROSIVE, N.O.S. (N,N'-Dimethyldipropyltriamine,3,3'-oxybis(ethyleneoxy)bis(propylamine))
IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (N,N'-Dimethyldipropyltriamine,3,3'-oxybis(ethyleneoxy)bis(propylamine),Epoxy resin)
IATA	Amines, liquid, corrosive, n.o.s. (N,N'-Dimethyldipropyltriamine,3,3'-oxybis(ethyleneoxy)bis(propylamine))

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant
IATA	not applicable

14.6. Special precautions for user

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

14.7. Transport in bulk according to Annex II of Marpol 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 (2010/75/EC)	< 3 %

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:

H226 Flammable liquid and vapor.
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.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
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.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.