

TEROSON EP 5055

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

Page 1 of 14

SDS No.: 368166 V010.0

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Replaces version from: 06.09.2019

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

1.1. Product identifier

TEROSON EP 5055

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

Intended use:

2-c-epoxide adhesive

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0 Fax-no.: +49 211 798 2009

ua-productsafety.de@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

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:



RP Bisphenol F-epichlorohydrin resin, MW<=700

1,2,3-Tris(2,3-epoxypropoxy)propane

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:P280 Wear protective gloves/eye protection.PreventionP273 Avoid release to the environment.

2.3. Other hazards

Persons suffering from allergic reactions to epoxides should avoid contact with the product. 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:

Part A of two part adhesive

Base substances of preparation:

Epoxy resin

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

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
reaction product: bisphenol-A-	01-2119456619-26	40- 60 %	Skin Irrit. 2
(epichlorhydrin); epoxy resin (number			H315
average molecular weight≤700)			Skin Sens. 1
25068-38-6			H317
			Eye Irrit. 2
			H319
			Aquatic Chronic 2
			H411
RP Bisphenol F-epichlorohydrin resin,		5-< 10 %	Skin Irrit. 2
MW<=700			H315
28064-14-4			Skin Sens. 1A
			H317
			Eye Irrit. 2
			H319
			Aquatic Chronic 2
			H411
1,2,3-Tris(2,3-epoxypropoxy)propane	236-211-1	1-< 3 %	Eye Irrit. 2
13236-02-7			H319
			Skin Irrit. 2
			H315
			Skin Sens. 1
			H317

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, consult doctor if complaint persists.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water. In case of adverse health effects seek medical advice.

Eye contact:

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

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

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:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

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

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

6.2. Environmental precautions

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

Inform authorities in the event of product spillage to water courses or sewage systems.

6.3. Methods and material for containment and cleaning up

Remove mechanically.

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

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Storage at 15 to 25°C is recommended.

7.3. Specific end use(s)

2-c-epoxide adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for Germany

None

Predicted No-Effect Concentration (PNEC):

Name on list	Name on list Environmental Exposure Value Compartment period					Remarks	
			mg/l	ppm	mg/kg	others	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	aqua (freshwater)		0,006 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	aqua (marine water)		0,001 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sewage treatment plant (STP)		10 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sediment (freshwater)				0,341 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	sediment (marine water)				0,034 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Soil				0,065 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	oral				11 mg/kg		
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	aqua (intermittent releases)		0,018 mg/l				
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	marine water - intermittent		0,002 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) 25068-38-6	Workers	dermal	Acute/short term exposure - systemic effects		8,33 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	Inhalation	Acute/short term exposure - systemic effects		12,25 mg/m3	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	dermal	Long term exposure - systemic effects		8,33 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	Workers	Inhalation	Long term exposure - systemic effects		12,25 mg/m3	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	dermal	Acute/short term exposure - systemic effects		3,571 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	dermal	Long term exposure - systemic effects		3,571 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	oral	Acute/short term exposure - systemic effects		0,75 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	oral	Long term exposure - systemic effects		0,75 mg/kg	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	inhalation	Acute/short term exposure - systemic effects		0,75 mg/m3	
reaction product: bisphenol-A- (epichlorhydrin) 25068-38-6	General population	inhalation	Long term exposure - systemic effects		0,75 mg/m3	

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

In case of dust formation, we recommend wearing of appropriate respiratory protection equipment with particle filter P (EN 14387).

This recommendation should be matched to local conditions.

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): Isobutylene-isoprene rubber (IIR; >= 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; >= 0.7 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:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing that covers arms and legs.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

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 paste

pasty black

Odor characteristic

Odour threshold No data available / Not applicable

pН No data available / Not applicable Melting point No data available / Not applicable Solidification temperature No data available / Not applicable Initial boiling point No data available / Not applicable No data available / Not applicable Flash point No data available / Not applicable Evaporation rate 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

1,0 g/cm3

Density (20 °C (68 °F))

Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Insoluble

(Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

No data available / Not applicable
No data available / Not applicable
No data available / Not applicable

Viscosity 150 Pa*s

(; 23 °C (73.4 °F))

Viscosity (kinematic)

Explosive properties

Oxidising properties

No data available / Not applicable
No data available / Not applicable
No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

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

No decomposition if used according to specifications.

SECTION 11: Toxicological information

General toxicological information:

Persons suffering from allergic reactions to epoxides should avoid contact with the product.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
reaction product:	moderately	24 h	rabbit	Draize Test
bisphenol-A-	irritating			
(epichlorhydrin); epoxy				
resin (number average				
molecular weight≤700)				
25068-38-6				
RP Bisphenol F-	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
epichlorohydrin resin,				
MW<=700				
28064-14-4				

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
reaction product:	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
bisphenol-A-				
(epichlorhydrin); epoxy				
resin (number average				
molecular weight≤700)				
25068-38-6				

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
reaction product:	sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
bisphenol-A-		assay (LLNA)		Local Lymph Node Assay)
(epichlorhydrin); epoxy				
resin (number average				
molecular weight≤700)				
25068-38-6				
RP Bisphenol F-	sensitising	Mouse local lymphnode	mouse	OECD Guideline 429 (Skin Sensitisation:
epichlorohydrin resin,		assay (LLNA)		Local Lymph Node Assay)
MW<=700				
28064-14-4				

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
reaction product: bisphenol-A- (epichlorhydrin); 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)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

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

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
reaction product: bisphenol-A- (epichlorhydrin); 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	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	NOAEL P > 750 mg/kg NOAEL F1 750 mg/kg NOAEL F2 750 mg/kg	two- generation study	oral: gavage	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of	Species	Method
CAS-NO.		аррисации	treatment		
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOAEL 50 mg/kg	oral: gavage	14 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	NOAEL 250 mg/kg	oral: gavage	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	LC50	1,75 mg/l	96 h	3	OECD Guideline 203 (Fish, Acute Toxicity Test)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	LC50	5,7 mg/l		, .	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	1,7 mg/l	48 h		OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	EC50	3,5 mg/l	48 h		OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	0,3 mg/l	21 d	1 0	OECD 211 (Daphnia magna, Reproduction Test)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	NOEC	0,3 mg/l	21 d	1 &	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	EC50	> 11 mg/l	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	NOEC	4,2 mg/l	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	EC50	9,4 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	IC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
CAS-NO.	II lactor (BCF)				
RP Bisphenol F-	31			not specified	not specified
epichlorohydrin resin,					
MW<=700					
28064-14-4					

12.4. Mobility in soil

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight≤700) 25068-38-6	3,242	25 °C	EU Method A.8 (Partition Coefficient)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	3,242		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
reaction product: bisphenol-A-(epichlorhydrin);	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
epoxy resin (number average molecular	Bioaccumulative (vPvB) criteria.
weight≤700)	
25068-38-6	

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

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. 080409

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. (Epoxy

resin)

RID ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy

resin)

ADN ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy

resin)

IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy

resin)

IATA Environmentally hazardous substance, liquid, n.o.s. (Epoxy 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 0 %

(VOCV 814.018 VOC regulation

CH)

VOC content 0 %

(2010/75/EU)

VOC Paints and Varnishes (EU):

Product (sub)category: This product is not a subject of the Directive 2004/42/EC

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: WGK 3: highly hazardous to water (Ordinance on facilities for handling

substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

BG regulations, rules, infos:

BG information: Guidance document for the handling of epoxy resins.

Storage class according to TRGS 510: 11

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 Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (ua-productsafety.de@henkel.com) prior to export to other territories than the European Union.

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.

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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 (EC) No 1907/2006 as amended Page 1 of 16

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TEROSON EP 5055

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

1.1. Product identifier

TEROSON EP 5055

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

Intended use:

2-c-epoxide adhesive

1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

Phone: +49 211 797 0 Fax-no.: +49 211 798 2009

ua-productsafety.de@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Acute toxicity	Category 4
H302 Harmful if swallowed.	
Route of Exposure: Oral	
Skin corrosion	Sub-category 1B
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 2
H411 Toxic to aquatic life with long lasting effects.	

2.2. Label elements

Label elements (CLP):



Contains Trimethylolpropane poly(oxypropylene)triamine 5-6PO

3-Aminopropyldimethylamine

Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines

Amines, polyethylenepoly-, triethylenetetramine fraction

Signal word:	Danger
Hazard statement:	H302 Harmful if swallowed.
	H314 Causes severe skin burns and eye damage.
	H317 May cause an allergic skin reaction.
	H411 Toxic to aquatic life with long lasting effects.
-	
Precautionary statement:	P260 Do not breathe dusts or mists.
Prevention	P273 Avoid release to the environment.
	P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement:	P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.
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

Persons suffering from allergic reactions to amines should avoid contact with the product. 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:

Part B of a two part adhesive

Base substances of preparation:

Polyethylene

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	500-105-6 01-2119556886-20	10- 20 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Eye Dam. 1 H318 Aquatic Chronic 2 H411
3-Aminopropyldimethylamine 109-55-7	203-680-9 01-2119486842-27	10-< 20 %	Flam. Liq. 3
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1		5- 10 %	Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 Skin Sens. 1B H317 Skin Irrit. 2 H315
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	292-588-2 01-2119487919-13	1-< 3 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Corr. 1B H314 Skin Sens. 1 H317 Eye Dam. 1 H318 Aquatic Chronic 3 H412

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

General information:

Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation:

Fresh air. Delayed effects possible after inhalation. Inform emergency services.

Skin contact:

Rinse immediately with plenty of running water (for 10 minutes). Remove all contaminated clothing and apply bandage. Seek medical advice.

Eve contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

Ingestion:

Rinse the mouth. Drink plenty of water. Immediate medical advice necessary.

Do not induce vomiting.

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

SKIN: Rash, Urticaria.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

Causes burns.

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:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

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

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

6.2. Environmental precautions

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

Inform authorities in the event of product spillage to water courses or sewage systems.

6.3. Methods and material for containment and cleaning up

Remove mechanically.

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

Hygiene measures:

Wash contaminated clothing before reuse.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Store in a cool, dry place. Storage at 15 to 25°C is recommended.

7.3. Specific end use(s)

2-c-epoxide adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Germany

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Talc (Mg3H2(SiO3)4) 14807-96-6			_	Category II: substances with a resorptive effect.	TRGS 900
Talc (Mg3H2(SiO3)4) 14807-96-6		1,25	Exposure limit(s):		TRGS 900
Talc (Mg3H2(SiO3)4) 14807-96-6		10	Exposure limit(s):	2	TRGS 900

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period					Remarks
	Compartment	periou	mg/l	ppm	mg/kg	others	
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	aqua (freshwater)		0,0044 mg/l				
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	aqua (marine water)		0,00044 mg/l				
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	aqua (intermittent releases)		0,044 mg/l				
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	sediment (freshwater)				0,02 mg/kg		
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	sediment (marine water)				0,002 mg/kg		
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	Soil				0,002 mg/kg		
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	sewage treatment plant (STP)		10 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (intermittent releases)		0,2 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (freshwater)		0,027 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (marine water)		0,003 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sediment (freshwater)				8,572 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sediment (marine water)				0,857 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Soil				1,25 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sewage treatment plant (STP)		0,13 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	oral						no potential for bioaccumulation

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	Workers	dermal	Long term exposure - systemic effects		1,6 mg/kg	
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	Workers	Inhalation	Long term exposure - systemic effects		14 mg/m3	
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	General population	Inhalation	Long term exposure - systemic effects		3,48 mg/m3	
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	General population	dermal	Long term exposure - systemic effects		0,8 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Workers	Inhalation	Long term exposure - systemic effects		0,54 mg/m3	no potential for bioaccumulation
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	Inhalation	Long term exposure - systemic effects		0,096 mg/m3	no potential for bioaccumulation
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	oral	Long term exposure - systemic effects		0,14 mg/kg	no potential for bioaccumulation

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure good ventilation/suction at the workplace.

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): Isobutylene-isoprene rubber (IIR; >= 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; >= 0.7 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:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing that covers arms and legs.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).

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 paste

gray green

Odor amine-like

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 No data available / Not applicable

Flash point $> 100 \,^{\circ}\text{C} (> 212 \,^{\circ}\text{F})$

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 1,11 g/cm³

(20 °C (68 °F))

Bulk density

No data available / Not applicable
Solubility

No data available / Not applicable

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water

Auto-ignition temperature

No data available / Not applicable

No data available / Not applicable

No data available / Not applicable

Viscosity 75 mPa.s

(; 23 °C (73.4 °F))
Viscosity (kinematic)

Explosive properties

Oxidising properties

No data available / Not applicable
No data available / Not applicable
No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

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

No decomposition if used according to specifications.

SECTION 11: Toxicological information

General toxicological information:

Persons suffering from allergic reactions to amines should avoid contact with the product.

11.1. Information on toxicological effects

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Trimethylolpropane	LD50	550 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down
poly(oxypropylene)triami				Procedure)
ne 5-6PO				
39423-51-3				
Fatty acids, C18-unsatd.,	LD50	> 8.000 mg/kg	rat	not specified
dimers, reaction products				
with				
polyethylenepolyamines				
68410-23-1				
Amines,	LD50	1.716 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
polyethylenepoly-,				Toxicity)
triethylenetetramine				
fraction				
90640-67-8				

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Trimethylolpropane	Acute	1.100 mg/kg		Expert judgement
poly(oxypropylene)triami	toxicity			
ne 5-6PO	estimate			
39423-51-3	(ATE)			
Trimethylolpropane	LD50	> 1.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
poly(oxypropylene)triami				
ne 5-6PO				
39423-51-3				
Amines,	LD50	1.465 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
polyethylenepoly-,				
triethylenetetramine				
fraction				
90640-67-8				

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Trimethylolpropane poly(oxypropylene)triami ne 5-6PO 39423-51-3	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	irritating		Human, EpiDermTM SIT (EPI-200), Reconstructed Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Trimethylolpropane	Category 1	1 s	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
poly(oxypropylene)triami	(irreversible			·
ne 5-6PO	effects on the			
39423-51-3	eye)			

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
3- Aminopropyldimethylami ne 109-55-7	sensitising		guinea pig	not specified
3- Aminopropyldimethylami ne 109-55-7	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ	cell	mutagenicity:

No data available.

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::	STOT-re	peated	exposure:	:
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No data available.

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Trimethylolpropane poly(oxypropylene)triamine 5- 6PO 39423-51-3	LC50	> 120 mg/l	96 h		OECD Guideline 203 (Fish, Acute Toxicity Test)
3-Aminopropyldimethylamine 109-55-7	LC50	122 mg/l	96 h	Leuciscus idus	DIN 38412-15
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	LC50	2,4 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	LC50	330 mg/l	96 h	Pimephales promelas	other guideline:

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
3-Aminopropyldimethylamine 109-55-7	EC50	59,5 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	EC50	0,46 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC50	31 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Amines, polyethylenepoly-,	EC10	1,9 mg/l	21 day	Daphnia magna	OECD Guideline 202
triethylenetetramine fraction			-		(Daphnia sp. Chronic
90640-67-8					Immobilisation Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Trimethylolpropane poly(oxypropylene)triamine 5- 6PO 39423-51-3	EC50	4,4 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Trimethylolpropane poly(oxypropylene)triamine 5- 6PO 39423-51-3	NOEC	l mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
3-Aminopropyldimethylamine 109-55-7	EC50	56,2 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	NOEC	0,4 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	EC50	0,9 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC50	20 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC10	1,34 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
3-Aminopropyldimethylamine	EC10	17 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8
109-55-7					(Pseudomonas
					Zellvermehrungshemm-
					Test)
Fatty acids, C18-unsatd.,	EC50	314 mg/l	3 h	activated sludge of a	OECD Guideline 209
dimers, reaction products with				predominantly domestic sewage	(Activated Sludge,
polyethylenepolyamines					Respiration Inhibition Test)
68410-23-1					

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Trimethylolpropane poly(oxypropylene)triamine 5- 6PO 39423-51-3		aerobic	< 20 %		OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
Trimethylolpropane poly(oxypropylene)triamine 5- 6PO 39423-51-3		aerobic	< 5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
3-Aminopropyldimethylamine 109-55-7	inherently biodegradable	not specified	100 %	15 d	OECD Guideline 302 B (Inherent biodegradability: Zahn- Wellens/EMPA Test)
3-Aminopropyldimethylamine 109-55-7	readily biodegradable	aerobic	65 %	20 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	not readily biodegradable.	aerobic	> 0 - < 60 %	74 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8		aerobic	0 %	162 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
3-Aminopropyldimethylamine 109-55-7	-0,352	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	8,71		QSAR (Quantitative Structure Activity Relationship)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	-2,65		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Trimethylolpropane poly(oxypropylene)triamine 5-6PO 39423-51-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
3-Aminopropyldimethylamine 109-55-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines 68410-23-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	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:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

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. 080409

SECTION 14: Transport information

14.1. UN number

ADR	3259
RID	3259
ADN	3259
IMDG	3259
IATA	3259

14.2. UN proper shipping name

ADR	AMINES, SOLID, CORROSIVE, N.O.S.
	(Dimethylaminopropylamine, Triethylenetetramine, Polyamide resin)
RID	AMINES, SOLID, CORROSIVE, N.O.S.
	(Dimethylaminopropylamine, Triethylenetetramine, Polyamide resin)
ADN	AMINES, SOLID, CORROSIVE, N.O.S.
	(Dimethylaminopropylamine, Triethylenetetramine, Polyamide resin)
IMDG	AMINES, SOLID, CORROSIVE, N.O.S.
	(Dimethylaminopropylamine, Triethylenetetramine, Polyamide resin)
IATA	Amines, solid, corrosive, n.o.s.

(Dimethylaminopropylamine, Triethylenetetramine, Polyamide resin)

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

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 0 %

(VOCV 814.018 VOC regulation

CH)

VOC content 0 %

(2010/75/EU)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: WGK 2: significantly water endangering (Ordinance on facilities for handling

substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 8A

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.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Further information:

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