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

SDS No. : 826239
V002.0

LOCTITE ABLESTIK ABP 8068TH 2.5CC/5CC SY

Revision: 20.05.2025
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE ABLESTIK ABP 8068TH 2.5CC/5CC SY
UFI: U75G-9XF3-W201-YN9A

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

Intended use:
Epoxy adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ireland
Operations and Research Limited
Tallaght Business Park, Whitestown
24 Dublin

Ireland

Phone: +353 (0353) 1 404 6444

SDSinfo.Adhesive@henkel.com
For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.

1.4. Emergency telephone number

00353 14046280

National Poisons Information Centre: Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Serious eye damage	Category 1
H318 Causes serious eye damage.	
Respiratory sensitizer	Category 1
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Toxic to reproduction	Category 1B
H360F May damage fertility.	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	
Acute hazards to the aquatic environment	Category 1
H400 Very toxic to aquatic life.	
Chronic hazards to the aquatic environment	Category 1
H410 Very toxic to aquatic life with long lasting effects.	

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2.2. Label elements

Label elements (CLP):

Hazard pictogram:	
Contains	Silver >= 99,9 % Ag in powder (>100nm<1mm) 1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 1,4-bis(2,3 epoxypropoxy)butane Bisphenol-F epichlorhydrin resin; MW<700 1,3-Isobenzofurandione, hexahydro-, reaction products with epichlorohydrin Epoxycyclohexylethyltrimethoxysilane
Signal word:	Danger
Hazard statement:	H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H360F May damage fertility. H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.
Supplemental information	Restricted to professional users.
Precautionary statement: Prevention	P201 Obtain special instructions before use. P261 Avoid breathing vapors. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration ≥ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration ≥ the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components CAS-No. EC Number REACH-Reg. No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4 231-131-3 01-2119555669-21	50- < 100 %	Repr. 2, H361f STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 10 M chronic = 10	EU OEL
Silver (D50 (nm) 300~500) 7440-22-4 231-131-3	20- < 40 %	Repr. 2, H361f STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 10 M chronic = 10	EU OEL
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8 246-644-8 01-2119979584-19	1- < 5 %	Acute Tox. 4, Oral, H302 Acute Tox. 3, Inhalation, H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Resp. Sens. 1, H334	inhalation:ATE = 0,5 mg/l;dust/mist	
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8 219-371-7 01-2119494060-45	1- < 5 %	Acute Tox. 4, Oral, H302 Acute Tox. 4, Dermal, H312 Acute Tox. 4, Inhalation, H332 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Repr. 1B, H360F	inhalation:ATE = 11,01 mg/l;vapour	
2-(2-Butoxyethoxy)ethyl acetate 124-17-4 204-685-9 01-2119475110-51	1- < 5 %	Eye Irrit. 2, H319		
Bisphenol-F epichlorhydrin resin; MW<700 ----- 01-2119454392-40	0,1- < 1 %	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Chronic 2, H411		
1,3-Isobenzofurandione, hexahydro-, reaction products with epichlorohydrin 1395383-69-3 01-2119948634-29	0,1- < 1 %	Skin Sens. 1, H317 Aquatic Chronic 3, H412		
Epoxycyclohexylethyltrimethoxy silane 3388-04-3 222-217-1 01-2120736721-57	0,1- < 1 %	Skin Sens. 1B, H317 Muta. 2, H341 Carc. 2, H351 Aquatic Chronic 3, H412		

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

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.

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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
SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Prolonged or repeated skin contact with silver and its salts may cause a blue-gray discoloration of the skin and mucous membranes that is irreversible (Argyria).

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

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:
water, 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.

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
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.

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

6.3. Methods and material for containment and cleaning up
Dispose of contaminated material as waste according to Section 13.
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.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Avoid skin and eye contact.
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

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
Ireland

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silver 7440-22-4 [Silver, metallic]		0,1	Time Weighted Average (TWA):	Indicative	ECTLV
Silver 7440-22-4 [Silver (metallic)]		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Silver 7440-22-4 [Silver, metallic]		0,1	Time Weighted Average (TWA):	Indicative	ECTLV
Silver 7440-22-4 [Silver (metallic)]		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):		EH40 WEL
Silver (D50 (nm) 300~500) 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):		EH40 WEL

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Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	aqua (freshwater)		0,00004 mg/l				
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	aqua (marine water)		0,00086 mg/l				
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	sewage treatment plant (STP)		0,025 mg/l				
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	sediment (freshwater)				438,13 mg/kg		
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	sediment (marine water)				438,13 mg/kg		
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	Air						no hazard identified
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	Soil				1,41 mg/kg		
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	aqua (freshwater)		0,4 mg/l				
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	aqua (marine water)		0,04 mg/l				
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	aqua (intermittent releases)		1 mg/l				
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	sewage treatment plant (STP)		5,91 mg/l				
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	sediment (freshwater)				4,64 mg/kg		
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	sediment (marine water)				0,464 mg/kg		
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	Soil				0,694 mg/kg		
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	aqua (freshwater)		0,111 mg/l				
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	aqua (marine water)		0,011 mg/l				
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	sewage treatment plant (STP)		10 mg/l				
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	sediment (freshwater)				0,484 mg/kg		
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	sediment (marine water)				0,048 mg/kg		
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Soil				0,032 mg/kg		
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	oral				22,2 mg/kg		
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Freshwater - intermittent		0,24 mg/l				
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	aqua (freshwater)		0,108 mg/l				
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	Freshwater - intermittent		0,6 mg/l				
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	sewage treatment plant (STP)		100 mg/l				
2-(2-Butoxyethoxy)ethyl acetate	sediment				0,8 mg/kg		

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124-17-4	(freshwater)						
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	sediment (marine water)				0,08 mg/kg		
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	Soil				0,29 mg/kg		
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	aqua (marine water)		0,011 mg/l				
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	oral				70 mg/kg		
Reaction mass bisphenol-F-(epichlorhydrin) -----	aqua (freshwater)		0,003 mg/l				
Reaction mass bisphenol-F-(epichlorhydrin) -----	aqua (marine water)		0,0003 mg/l				
Reaction mass bisphenol-F-(epichlorhydrin) -----	sewage treatment plant (STP)		10 mg/l				
Reaction mass bisphenol-F-(epichlorhydrin) -----	sediment (freshwater)				0,294 mg/kg		
Reaction mass bisphenol-F-(epichlorhydrin) -----	sediment (marine water)				0,0294 mg/kg		
Reaction mass bisphenol-F-(epichlorhydrin) -----	Soil				0,237 mg/kg		
Reaction mass bisphenol-F-(epichlorhydrin) -----	aqua (intermittent releases)		0,0254 mg/l				
Reaction mass bisphenol-F-(epichlorhydrin) -----	Air						no hazard identified
Reaction mass bisphenol-F-(epichlorhydrin) -----	Predator						no potential for bioaccumulation

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Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	Workers	inhalation	Long term exposure - systemic effects		0,1 mg/m3	no hazard identified
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	General population	inhalation	Long term exposure - systemic effects		0,04 mg/m3	no hazard identified
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	General population	oral	Long term exposure - systemic effects		1,2 mg/kg	no hazard identified
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	Workers	dermal	Long term exposure - systemic effects		0,07 mg/kg	
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	Workers	inhalation	Long term exposure - systemic effects		0,23 mg/m3	
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	inhalation	Long term exposure - systemic effects		7,8 mg/m3	
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	dermal	Long term exposure - systemic effects		5,5 mg/kg	
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	inhalation	Long term exposure - systemic effects		1,91 mg/m3	
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	dermal	Long term exposure - systemic effects		2,75 mg/kg	
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	oral	Long term exposure - systemic effects		1,38 mg/kg	
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	inhalation	Acute/short term exposure - systemic effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	inhalation	Long term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	inhalation	Acute/short term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	dermal	Long term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	dermal	Acute/short term exposure - systemic effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	Workers	dermal	Acute/short term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	inhalation	Acute/short term exposure - systemic effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	inhalation	Long term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	inhalation	Acute/short term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	dermal	Acute/short term exposure - systemic effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	dermal	Long term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	dermal	Acute/short term exposure - local effects			
1,4-Bis(2,3-epoxypropoxy)butane 2425-79-8	General population	oral	Acute/short term exposure -			

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			systemic effects			
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	General population	oral	Long term exposure - systemic effects		7,9 mg/kg	
Reaction mass bisphenol-F-(epichlorhydrin) -----	Workers	Inhalation	Long term exposure - systemic effects		29,39 mg/m3	no hazard identified
Reaction mass bisphenol-F-(epichlorhydrin) -----	Workers	dermal	Long term exposure - systemic effects		104,15 mg/kg	no hazard identified
Reaction mass bisphenol-F-(epichlorhydrin) -----	Workers	dermal	Acute/short term exposure - local effects		0,0083 mg/cm2	no hazard identified
Reaction mass bisphenol-F-(epichlorhydrin) -----	General population	Inhalation	Long term exposure - systemic effects		8,7 mg/m3	no hazard identified
Reaction mass bisphenol-F-(epichlorhydrin) -----	General population	dermal	Long term exposure - systemic effects		62,5 mg/kg	no hazard identified
Reaction mass bisphenol-F-(epichlorhydrin) -----	General population	oral	Long term exposure - systemic effects		6,25 mg/kg	no hazard identified

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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	liquid
Colour	Silver
Odor	neutral
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	200 °C (392 °F)
Initial boiling point	Not applicable, Polymerization can occur at greater than 150°C (302°F).
Flammability	Not applicable Non flammable product (flash point is greater than 93°C)
Explosive limits	Not applicable, The product is not flammable.
Flash point	> 93 °C (> 199.4 °F)
Auto-ignition temperature	Not applicable, The product is not flammable.
Decomposition temperature	> 250 °C (> 482 °F);
pH (20 °C (68 °F); Solvent: Water)	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic) (40 °C (104 °F);)	2.500 mm2/s
Viscosity, dynamic (Brookfield; 20 °C (68 °F); speed of rotation: 5 min-1)	12.000 - 16.000 cp
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (20 °C (68 °F))	< 0,1 hPa
Density (20 °C (68 °F))	5,2 g/cm3
Relative vapour density: (20 °C)	> 1
Particle characteristics	Not applicable Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

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

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Stable under normal conditions of storage and use.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
carbon oxides.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

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

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Silver (D50 (nm) 300~500) 7440-22-4	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	LD50	958,4 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	LD50	1.118 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	LD50	11.920 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Bisphenol-F epichlorhydrin resin; MW<700 -----	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	LD50	13.000 mg/kg	rat	not specified

Acute dermal toxicity:

Prolonged or repeated skin contact with silver and its salts may cause a blue-gray discoloration of the skin and mucous membranes that is irreversible (Argyria).

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	LD50	4.920 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	LD50	1.130 mg/kg	rabbit	not specified
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	LD50	5.400 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Bisphenol-F epichlorhydrin resin; MW<700 -----	LD50	> 2.000 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	LD50	6.700 mg/kg	rabbit	not specified

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Acute inhalative toxicity:

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

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

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	Acute toxicity estimate (ATE)	0,5 mg/l	dust/mist			Expert judgement
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	LC50	< 0,75 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	Acute toxicity estimate (ATE)	11,01 mg/l	vapour	4 h		Expert judgement
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	LC50	72,5 mg/l	dust/mist	4 h	rat	not specified

Skin corrosion/irritation:

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

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

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	irritating		rabbit	not specified
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Bisphenol-F epichlorhydrin resin; MW<700 -----	irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	not irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

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Serious eye damage/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
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	Category 2A (irritating to eyes)	2 h	Human, in vitro, reconstituted human corneal model	OECD Guideline 492 (Reconstructed Human Cornea-like Epithelium (RhCE) Test Method)
Bisphenol-F epichlorhydrin resin; MW<700 -----	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	not sensitising	Buehler test	guinea pig	EU Method B.6 (Skin Sensitisation)
Bisphenol-F epichlorhydrin resin; MW<700 -----	Sub-Category 1A (sensitising)	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

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Germ cell mutagenicity:

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

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

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	positive	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	positive	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)

Carcinogenicity

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

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

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	carcinogenic	dermal	Chronic 3 d / week	mouse	male	not specified

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Reproductive toxicity:

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

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	NOAEL P 55 mg/kg NOAEL F1 55 mg/kg	one-generation study	oral: gavage	rat	OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	NOAEL P 720 mg/kg NOAEL F1 720 mg/kg	multigeneration study	oral: drinking water	mouse	other guideline:
Bisphenol-F epichlorhydrin resin; MW<700 -----	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 treatment	Species	Method
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	NOAEL 200 mg/kg	oral: gavage	28 d daily	rat	OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	NOAEL 250 mg/kg	oral: drinking water	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Bisphenol-F epichlorhydrin resin; MW<700 -----	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.

11.2 Information on other hazards

not applicable

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SECTION 12: Ecological information

General ecological information:
Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	LC50	0,0012 mg/l	96 h	Pimephales promelas	other guideline:
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	EC10	0,00019 mg/l	217 d	Salmo trutta	OECD Guideline 210 (fish early lite stage toxicity test)
Silver (D50 (nm) 300~500) 7440-22-4	LC50	0,0012 mg/l	96 h	Pimephales promelas	other guideline:
Silver (D50 (nm) 300~500) 7440-22-4	EC10	0,00019 mg/l	217 d	Salmo trutta	OECD Guideline 210 (fish early lite stage toxicity test)
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	LC50	313 mg/l	48 h	Leuciscus idus	DIN 38412-15
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	LC50	19,8 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	EC10	1,11 mg/l	35 d	Danio rerio	OECD Guideline 210 (fish early lite stage toxicity test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	LC50	50 - 70 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	LC50	5,7 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	LC50	42,3 mg/l	96 h	Cyprinus carpio	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	EC50	0,00022 mg/l	48 h	Daphnia magna	other guideline:
Silver (D50 (nm) 300~500) 7440-22-4	EC50	0,00022 mg/l	48 h	Daphnia magna	other guideline:
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	EC50	75 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	EC50	665 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	EC50	2,55 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

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Epoxycyclohexylethyltrimethoxysilane 3388-04-3	EC50	58 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances **CAS-No.**	**Value type**	**Value**	**Exposure time**	**Species**	**Method**
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	NOEC	0,00032 mg/l	21 d	Daphnia magna	EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
Silver (D50 (nm) 300~500) 7440-22-4	NOEC	0,00032 mg/l	21 d	Daphnia magna	EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	EC10	8,93 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	NOEC	16 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	EC10	0,00016 mg/l	15 d	other:	other guideline:
Silver (D50 (nm) 300~500) 7440-22-4	EC10	0,00016 mg/l	15 d	other:	other guideline:
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	EC50	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	NOEC	66,7 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	EC50	> 160 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	NOELR	40 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	EC50	1,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	NOEC	6 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	EC50	90 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	EC50	> 1.000 mg/l	3 h		ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	IC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	EC0	1.575 mg/l	30 min		not specified
Bisphenol-F epichlorhydrin resin; MW<700 -----	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	EC50	> 100 mg/l	30 min		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

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The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	not readily biodegradable.	aerobic	0 %	28 day	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	not readily biodegradable.	aerobic	38 %	28 d	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	inherently biodegradable	aerobic	98 %	60 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4		aerobic	> 90 %	14 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	readily biodegradable	aerobic	100 %	30 d	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3		aerobic	28 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	70	42 d	20 °C	Cyprinus carpio	other guideline:
Silver (D50 (nm) 300~500) 7440-22-4	70	42 d	20 °C	Cyprinus carpio	other guideline:
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	> 3,9 - < 5,5	42 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)

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12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	1,7	40 °C	EPA OPPTS 830.7570 (Partition Coefficient, n-octanol / H2O, Estimation by Liquid Chromatography)
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	-0,269	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	1,3		not specified
Bisphenol-F epichlorhydrin resin; MW<700 -----	2,7 - 3,6		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Epoxycyclohexylethyltrimethoxysilane 3388-04-3	4,1	23 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1,2,3,6-Tetrahydromethyl-3,6-methanophthalic anhydride 25134-21-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1,4-bis(2,3 epoxypropoxy)butane 2425-79-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
2-(2-Butoxyethoxy)ethyl acetate 124-17-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Bisphenol-F epichlorhydrin resin; MW<700 -----	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Do not empty into drains / surface water / ground water.
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.

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SECTION 14: Transport information

14.1. UN number or ID number

ADR	3082
RID	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Silver)

14.3. Transport hazard class(es)

ADR	9
RID	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine Pollutant
IATA	Environmentally Hazardous

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), A197 (IATA), 2.10.2.7 (IMDG), NZ 4.3(10) may be applied, which can result in a deviation from the transport classification for packed goods.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

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SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 2024/590):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EC)	< 5 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

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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:

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H360F May damage fertility.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
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.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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