

9,5G EFD

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

LOCTITE ABLESTIK 8175 known as ABLEBOND 8175 2,5/3CC

Page 1 of 16

SDS No.: 374129

V005.0

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Replaces version from: 20.10.2017

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

#### 1.1. Product identifier

LOCTITE ABLESTIK 8175 known as ABLEBOND 8175 2,5/3CC 9,5G EFD

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

Intended use: Epoxy adhesive

### 1.3. Details of the supplier of the safety data sheet

Henkel Ltd Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

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

ua-productsafety.uk@henkel.com

## 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification (CLP):

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye irritation Category 2

H319 Causes serious eye irritation.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

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.

#### 2.2. Label elements

#### Label elements (CLP):



**Contains** Bisphenol-F epichlorhydrin resin; MW<700

1,4-Bis(2,3-epoxypropoxy)butane

Bisphenol F, epichlorohydrin resin reaction product with carboxy-terminated butadiene,

acrylonitrile polymer

Signal word:	Warning
II.	17215 Causes alin imitation
Hazard statement:	H315 Causes skin irritation. H317 May cause an allergic skin reaction.
	H319 Causes serious eye irritation.
	H410 Very toxic to aquatic life with long lasting effects.
Precautionary statement:	P273 Avoid release to the environment.
Prevention	P280 Wear protective gloves.
Precautionary statement:	P302+P352 IF ON SKIN: Wash with plenty of soap and water.
Response	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
•	P337+P313 If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

# **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

# General chemical description:

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.	50 100 0/	A A 1
Silver >= 99,9 % Ag in powder	231-131-3	50- 100 %	Aquatic Acute 1
(>100nm<1mm)	01-2119555669-21		H400
7440-22-4			Aquatic Chronic 1
			H410
			M factor (Acute Aquat Tox): 10 M factor
			(Chron Aquat Tox): 10
Bisphenol-F epichlorhydrin resin; MW<700	500-006-8	10- 20 %	Skin Irrit. 2; Dermal
9003-36-5	500-006-8		H315
	01-2119454392-40		Skin Sens. 1A
			H317
			Aquatic Chronic 2
			H411
1,4-Bis(2,3-epoxypropoxy)butane	219-371-7	1-< 3 %	Acute Tox. 4
2425-79-8	01-2119494060-45		H302
			Acute Tox. 4
			H312
			Acute Tox. 4
			H332
			Skin Irrit. 2
			H315
			Skin Sens. 1
			H317
			Eye Dam. 1
			H318
			Aquatic Chronic 3
			H412
Bisphenol F, epichlorohydrin resin reaction		5-< 10 %	Skin Irrit. 2
product with carboxy-terminated butadiene,			H315
acrylonitrile polymer			Eye Irrit. 2
68610-73-1			H319
			Skin Sens. 1
			H317
			Aquatic Chronic 2
			H411

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

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

Inhalation:

Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact

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

Ingestion:

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

Page 4 of 16

**EFD** 

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

SKIN: Rash, Urticaria.

SKIN: Redness, inflammation.

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).

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:

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

### 5.3. Advice for firefighters

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

### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Remove sources of ignition.

#### 6.2. Environmental precautions

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

#### 6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

#### 6.4. Reference to other sections

See advice in section 8

### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Avoid skin and eye contact.

See advice in section 8

#### Hygiene measures:

Good industrial hygiene practices should be observed.

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. Keep container tightly sealed. Refer to Technical Data Sheet

### 7.3. Specific end use(s)

Epoxy adhesive

# **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

### **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Silver 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):		EH40 WEL
Silver 7440-22-4 [SILVER, METALLIC]		0,1	Time Weighted Average (TWA):	Indicative	ECTLV

### **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
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

# **Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value			Remarks	
	общраг списи	Periou	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	FF			
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						
Silver >= 99,9 % Ag as powder (>100nm<1mm) classified for environment 7440-22-4	Soil				1,41 mg/kg		
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	aqua (freshwater)		0,003 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	aqua (marine water)		0,0003 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	sediment (freshwater)				0,294 mg/kg		
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	sediment (marine water)				0,0294 mg/kg		
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Soil				0,237 mg/kg		
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	aqua (intermittent releases)		0,0254 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Air						
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Predator						

### **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	
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	
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	
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Workers	dermal	Long term exposure - systemic effects		104,15 mg/kg	
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Workers	Inhalation	Long term exposure - systemic effects		29,39 mg/m3	
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	General population	dermal	Long term exposure - systemic effects		62,5 mg/kg	
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	General population	Inhalation	Long term exposure - systemic effects		8,7 mg/m3	
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	General population	oral	Long term exposure - systemic effects		6,25 mg/kg	
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) 9003-36-5	Workers	dermal	Acute/short term exposure - local effects		8,3 μg/cm2	

### **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:

Odor

Wear suitable protective clothing.

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

Advices to personal protection equipment:

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

### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Appearance paste

solid silver

silver Slight

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 > 93 °C (> 199.4 °F)

Evaporation rate No data available / Not applicable Flammability No data available / Not applicable Explosive limits No data available / Not applicable

Vapour pressure Not applicable

Relative vapour density:

Density

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

Decomposition temperature

Viscosity

No data available / Not applicable
Viscosity (kinematic)

No data available / Not applicable
Explosive properties

No data available / Not applicable
Oxidising properties

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

Reacts with alcohols and amines.

Reacts with oxidants, acids and lyes

Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

See section reactivity

#### 10.4. Conditions to avoid

No decomposition if stored and applied as directed.

#### 10.5. Incompatible materials

See section reactivity.

#### 10.6. Hazardous decomposition products

Hydrocarbons carbon oxides. nitrogen oxides

Rapid polymerisation may generate excessive heat and pressure.

# **SECTION 11: Toxicological information**

#### 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 CAS-No.	Value	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)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LD50	> 5.000 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)

#### 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).

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
Silver >= 99,9 % Ag in	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
powder (>100nm<1mm)				
7440-22-4				
Bisphenol-F	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
epichlorhydrin resin;				
MW<700				
9003-36-5				

#### Acute inhalative toxicity:

No substance data available.

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		
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

### 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		
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	not irritating		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)

### 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
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
1,4-Bis(2,3- epoxypropoxy)butane 2425-79-8	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

### Germ cell mutagenicity:

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

Hazardous substances	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
		administration	Exposure time		
Silver >= 99,9 % Ag in	negative	in vitro mammalian	with and without		OECD Guideline 487 (In vitro
powder (>100nm<1mm)		cell micronucleus			Mammalian Cell
7440-22-4		test			Micronucleus Test)
Bisphenol-F	positive	bacterial reverse	with and without		OECD Guideline 471
epichlorhydrin resin;		mutation assay (e.g			(Bacterial Reverse Mutation
MW<700		Ames test)			Assay)
9003-36-5					
1,4-Bis(2,3-	positive	bacterial reverse	with and without		OECD Guideline 471
epoxypropoxy)butane		mutation assay (e.g			(Bacterial Reverse Mutation
2425-79-8		Ames test)			Assay)
1,4-Bis(2,3-	positive	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
epoxypropoxy)butane		chromosome			Mammalian Chromosome
2425-79-8		aberration test			Aberration Test)
1,4-Bis(2,3-	positive	mammalian cell	with and without		OECD Guideline 476 (In vitro
epoxypropoxy)butane	-	gene mutation assay			Mammalian Cell Gene
2425-79-8					Mutation Test)

### Carcinogenicity

No data available.

## 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		
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	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
			treatment		
Bisphenol-F	NOAEL 250 mg/kg	oral: gavage	13 w	rat	OECD Guideline 408
epichlorhydrin resin;			daily		(Repeated Dose 90-Day
MW<700					Oral Toxicity in Rodents)
9003-36-5					,
1,4-Bis(2,3-	NOAEL 200 mg/kg	oral: gavage	28 d	rat	OECD Guideline 407
epoxypropoxy)butane			daily		(Repeated Dose 28-Day
2425-79-8			1		Oral Toxicity in Rodents)

# Aspiration hazard:

No data available.

# **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.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
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)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	LC50	5,7 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
1,4-Bis(2,3- epoxypropoxy)butane 2425-79-8	LC50	24 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	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				
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	EC50	0,00022 mg/l	48 h	Daphnia magna	other guideline:
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	EC50	2,55 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)

### 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				
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	NOEC	0,00032 mg/l	21 d	- T	EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	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				
Silver >= 99,9 % Ag in powder (>100nm<1mm) 7440-22-4	EC10	0,00016 mg/l	15 d	other:	other guideline:
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	EC50	1,8 mg/l	72 h	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 CAS-No.	Value type	Value	Exposure time	Species	Method
Bisphenol-F epichlorhydrin resin; MW<700 9003-36-5	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
1,4-Bis(2,3- epoxypropoxy)butane 2425-79-8	EC 50	> 100 mg/l	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

### 12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Bisphenol-F epichlorhydrin	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 D (Ready
resin; MW<700					Biodegradability: Closed Bottle
9003-36-5					Test)
1,4-Bis(2,3-		aerobic	38 %	28 d	OECD Guideline 301 E (Ready
epoxypropoxy)butane					biodegradability: Modified OECD
2425-79-8					Screening Test)

### 12.3. Bioaccumulative potential

No data available.

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Silver >= 99,9 % Ag in	70	42 d	20 °C	Cyprinus carpio	other guideline:
powder (>100nm<1mm)					
7440-22-4					

# 12.4. Mobility in soil

Cured adhesives are immobile.

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Hazardous substances	LogPow	Temperature	Method
CAS-No.			
Bisphenol-F epichlorhydrin	2,7 - 3,6		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
resin; MW<700			Method)
9003-36-5			
1,4-Bis(2,3-	-0,269	25 °C	OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC
epoxypropoxy)butane			Method)
2425-79-8			

#### 12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Silver >= 99,9 % Ag in powder (>100nm<1mm	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
	Bioaccumulative (vPvB) criteria.
7440-22-4	
Bisphenol-F epichlorhydrin resin; MW<700	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
9003-36-5	Bioaccumulative (vPvB) criteria.
1,4-Bis(2,3-epoxypropoxy)butane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
2425-79-8	Bioaccumulative (vPvB) criteria.

#### 12.6. 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.

# **SECTION 14: Transport information**

### 14.1. UN number

ADR	3077
RID	3077
ADN	3077
IMDG	3077
IATA	3077

### 14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Silver)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Silver)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Silver)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Silver)
$I\Lambda T\Lambda$	Environmentally hazardous substance solid nos (Silver)

IATA Environmentally hazardous substance, solid, n.o.s. (Silver)

#### 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

not applicable
not applicable
not applicable
Marine pollutant
not applicable

### 14.6. Special precautions for user

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

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

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### **SECTION 15: Regulatory information**

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

VOC content < 3 % (2010/75/EC)

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

### **SECTION 16: Other information**

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

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.

H332 Harmful if inhaled.

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:**

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.

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.