

according to Regulation (EC) No 1907/2006

# Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 1 of 15

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

#### 1.1. Product identifier

Proguard CN-OC V12 K3 Part A

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

#### Use of the substance/mixture

Coatings and paints, fillers, putties, thinners

Uses advised against

No data available

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

Company name: Street: Place:	Chesterton International GmbH Am Lenzenfleck 23 DE-85737 Ismaning GERMANY	
Telephone: e-mail: e-mail (Contact person): Internet: Responsible Department:	+49 89 99 65 46 - 0 eu-sds@chesterton.com eu-sds@chesterton.com www.chesterton.com eu-sds@chesterton.com	Telefax:+49 89 99 65 46 - 50
1.4. Emergency telephone	+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)	

number:

## **SECTION 2: Hazards identification**

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

## Regulation (EC) No. 1272/2008

Hazard categories: Skin corrosion/irritation: Skin Corr. 1C Serious eye damage/eye irritation: Eye Dam. 1 Respiratory or skin sensitisation: Skin Sens. 1 Germ cell mutagenicity: Muta. 2 Reproductive toxicity: Repr. 1B Hazardous to the aquatic environment: Aquatic Chronic 2 Hazard Statements: Causes severe skin burns and eye damage. Causes serious eye damage. May cause an allergic skin reaction. Suspected of causing genetic defects. May damage fertility. Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

#### Regulation (EC) No. 1272/2008



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 2 of 15

### Hazard components for labelling

Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane Phenol, polymer with formaldehyde, glycidether Signal word: Danger

Pictograms:



#### Hazard statements

H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H360F	May damage fertility.
H411	Toxic to aquatic life with long lasting effects.

#### **Precautionary statements**

cautionaly statement	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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/doctor.

## 2.3. Other hazards

No information available.

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

## 3.2. Mixtures



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 3 of 15

#### Hazardous components

Chemical name					
EC No	Index No	REACH No			
GHS Classification		•			
	25-30 %				
701-135-4 01-2120078341-60					
Muta. 2, Repr. 1B, Skin Corr. 1C, E H314 H318 H317 H411	Eye Dam. 1, Skin Sens. 1B, Aqua	atic Chronic 2; H341 H360F	25 - 30 %		
Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4- (oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'- [methylenebis(2,1-phenyleneoxymethylene)]dioxirane					
701-263-0		01-2119454392-40			
Skin Irrit. 2, Skin Sens. 1, Aquatic	Chronic 2; H315 H317 H411				
Phenol, polymer with formaldehyde	e, glycidether		15-20 %		
608-164-0					
Skin Irrit. 2, Skin Sens. 1, Aquatic					
butanone; ethyl methyl ketone	1-5 %				
201-159-0	606-002-00-3	01-2119457290-43			
Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066					
	EC No   GHS Classification   Reaction mass of 1-(2,3-epoxyprop (2,3-epoxypropoxy)-2-((2,3-epoxyprop (0,3-epoxypropoxy)-2-((2,3-epoxyprop (0,3-epoxypropoxy)-2-((2,3-epoxyprop (0,3-epoxypropoxy)-2-((2,3-epoxyprop (0,3-epoxypropoxy)-2-((2,3-epoxyprop (0,3-epoxypropoxy)-2-((2,3-epoxyproxy)-2-((2,3-epoxyprox)-	EC NoIndex NoGHS ClassificationReaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy))-2-hydroxy butan701-135-4Muta. 2, Repr. 1B, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1B, Aqua H314 H318 H317 H411Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)] (oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'- [methylenebis(2,1-phenyleneoxymethylene)]dioxirane701-263-0Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411Phenol, polymer with formaldehyde, glycidether608-164-0Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411butanone; ethyl methyl ketone201-159-0606-002-00-3	EC No Index No REACH No   GHS Classification GHS Classification Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane 01-2120078341-60   701-135-4 01-2120078341-60   Muta. 2, Repr. 1B, Skin Corr. 1C, Eye Dam. 1, Skin Sens. 1B, Aquatic Chronic 2; H341 H360F   H314 H318 H317 H411 Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-[methylenebis(2,1-phenyleneoxymethylene)]dioxirane   701-263-0 01-2119454392-40   Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411 Phenol, polymer with formaldehyde, glycidether   608-164-0 Skin Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H317 H411   butanone; ethyl methyl ketone 01-2119457290-43		

Full text of H and EUH statements: see section 16.

## **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### **General information**

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice immediately. Do not wash with: Solvents/Thinner

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

#### After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

## Do NOT induce vomiting.

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

Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.



according to Regulation (EC) No 1907/2006

# Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 4 of 15

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

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

First Aid, decontamination, treatment of symptoms.

After contact with skin, wash immediately with plenty of Lutrol.

#### **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

#### Suitable extinguishing media

Dry extinguishing powder. Carbon dioxide (CO2). alcohol resistant foam. Water spray jet

#### Unsuitable extinguishing media

Full water jet

#### 5.2. Special hazards arising from the substance or mixture

Carbon monoxide Carbon dioxide (CO2). Nitrogen oxides (NOx)

### 5.3. Advice for firefighters

Special protective equipment for firefighters Protective clothing. In case of fire: Wear self-contained breathing apparatus.

Co-ordinate fire-fighting measures to the fire surroundings.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

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

See protective measures under point 7 and 8. Provide adequate ventilation. Personal protection equipment: see section 8 Remove persons to safety.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Adverse environmental effects

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

## 6.4. Reference to other sections

See protective measures under point 7 and 8. Disposal: see section 13

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

#### Advice on safe handling

See section 8. Wear personal protection equipment (refer to section 8). Keep container tightly closed.



according to Regulation (EC) No 1907/2006

# Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 5 of 15

### Advice on protection against fire and explosion

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

#### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

#### Hints on joint storage

Keep away from: Food and feedingstuffs Oxidising agent

## Further information on storage conditions

Keep away from: Frost Heat Humidity

## 7.3. Specific end use(s)

No information available.

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

#### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL

## **Biological Monitoring Guidance Values (EH40)**

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 6 of 15

### **DNEL/DMEL** values

CAS No	Substance					
DNEL type		Exposure route	Effect	Value		
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl)-2-hydroxy butane	s ((2,3-epoxypropoxy)methyl) bu	tane and 1-(2,3-epo	xypropoxy)-2-		
Worker DNE	L, long-term	inhalation	systemic	1,17 mg/m <sup>3</sup>		
Worker DNEL, long-term		dermal	systemic	0,67 mg/kg bw/day		
,						
	Reaction mass of 2,2'-[methylenebis(4,1-phen (oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)o [methylenebis(2,1-phenyleneoxymethylene)]di	xirane and [2,2'-	id [2-({ 2-[4-			
Worker DNE	L, long-term	inhalation	systemic	29,39 mg/m <sup>3</sup>		
Worker DNE	L, long-term	dermal	systemic	104,15 mg/kg bw/day		
Worker DNEL, long-term		inhalation	local	0,0083 mg/m³		
Consumer DNEL, long-term		inhalation	systemic	8,7 mg/m³		
Consumer DNEL, long-term		dermal	systemic	62,5 mg/kg bw/day		
Consumer D	NEL, long-term	oral	systemic	6,25 mg/kg bw/day		
28064-14-4	Phenol, polymer with formaldehyde, glycidethe	er				
Worker DNE	L,	dermal		104,15 mg/kg bw/day		
Worker DNE	iL,	inhalation		29,39 mg/m <sup>3</sup>		
78-93-3	butanone; ethyl methyl ketone					
Consumer DNEL, long-term		oral	systemic	31 mg/kg bw/day		
Consumer DNEL, long-term		dermal	systemic	412 mg/kg bw/day		
Consumer DNEL, long-term		inhalation	systemic	106 mg/m <sup>3</sup>		
Worker DNE	E, long-term	inhalation	systemic	600 mg/m <sup>3</sup>		
Worker DNE	E, long-term	dermal	systemic	1161 mg/kg bw/day		



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 7 of 15

#### **PNEC** values

CAS No	Substance	
Environmer	ntal compartment	Value
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)mety)-2-hydroxy butane	ethyl) butane and 1-(2,3-epoxypropoxy)-2-
Freshwater		0,004 mg/l
Freshwater	r (intermittent releases)	0,037 mg/l
Freshwater	r sediment	0,02 mg/kg
Marine sedi	liment	0,002 mg/kg
Soil		0,002 mg/kg
	Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dio: (oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'- [methylenebis(2,1-phenyleneoxymethylene)]dioxirane	xirane and [2-({ 2-[4-
Freshwater	0,003 mg/l	
Freshwater	0,294 mg/kg	
Marine sedi	liment	0,029 mg/kg
Soil		0,237 mg/kg
78-93-3	butanone; ethyl methyl ketone	
Freshwater		55,8 mg/l
Freshwater	r (intermittent releases)	55,8 mg/l
Marine wate	er	55,8 mg/l
Freshwater	r sediment	284,74 mg/kg
Marine sedi	liment	284,7 mg/kg
Secondary	poisoning	1000 mg/kg
Micro-orgar	nisms in sewage treatment plants (STP)	709 mg/l
Soil		22,5 mg/kg

### 8.2. Exposure controls

### Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

## Protective and hygiene measures

Work in well-ventilated zones or use proper respiratory protection. Only wear fitting, comfortable and clean protective clothing. Avoid contact with skin, eyes and clothes. Wash hands and face before breaks and after work and take a shower if necessary.

#### Eye/face protection

Suitable eye protection: Eye glasses with side protection goggles

## Hand protection

Tested protective gloves must be worn: EN ISO 374

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GB - EN



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 8 of 15

NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Wearing time with permanent contact: Thickness of the glove material: >= 0,4 mm, Breakthrough time (maximum wearing time): >480 min

Wearing time with occasional contact (splashes):: Thickness of the glove material: >= 0,1 mm, Breakthrough time (maximum wearing time) > 30 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Breakthrough times and swelling properties of the material must be taken into consideration.

## Skin protection

Protective clothing

## **Respiratory protection**

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Combination filtering device (EN 14387) A-P3 Self-contained respirator (breathing apparatus) (DIN EN 133)

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

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

Physical state:	Liquid	
Colour:	black	
Odour:	characteristic	
pH-Value:		No data available
Changes in the physical state		
Melting point:		No data available
Initial boiling point and boiling range:		No data available
Sublimation point:		No data available
Softening point:		No data available
Pour point:		No data available
Flash point:		> 100 °C
Flammability		
Solid:		No data available
Gas:		No data available
Explosive properties No information available.		
Lower explosion limits:		No data available
1		No data available
Upper explosion limits:		
Ignition temperature:		No data available
Auto-ignition temperature		
Solid:		No data available
Gas:		No data available



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019		Page 9 of
Decomposition temperature:	No data available	
Oxidizing properties No information available.		
Vapour pressure:	No data available	
Density (at 20 °C):	~1,3 g/cm³	
Water solubility:	No data available	
Solubility in other solvents No information available.		
Partition coefficient:	No data available	
Viscosity / dynamic:	No data available	
Vapour density:	No data available	
Evaporation rate:	No data available	
9.2. Other information		

No information available.

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

### 10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

## 10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid, Oxidising agent

#### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 10.5. Incompatible materials

Acid, Oxidising agent

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

#### Acute toxicity

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

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Page 9 of 15



according to Regulation (EC) No 1907/2006

# Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 10 of 15

CAS No	Chemical name								
	Exposure route	Dose		Species	Source	Method			
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2- ((2,3-epoxypropoxy)methyl)-2-hydroxy butane								
	oral	LD50 mg/kg	3398	Rat	Other company data (1976)	OECD Guideline 401			
	dermal	LD50 mg/kg	> 3170	Rat	Study report (1976)	OECD Guideline 402			
28064-14-4	-14-4 Phenol, polymer with formaldehyde, glycidether								
	oral	LD50 mg/kg	>2000	Rat	Supplier				
	dermal	LD50 mg/kg	>2000	Rabbit	Supplier				
78-93-3	butanone; ethyl methyl k	etone							
	oral	LD50 mg/kg	>2000	Rat	Supplier	OECD 423			
	dermal	LD50 8000 mg/kg	6400 -	Rabbit	Supplier				
	inhalation (4 h) aerosol	LC50	34,5 mg/l	Rat					

#### Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

#### Sensitising effects

May cause an allergic skin reaction. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis

((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane;

Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4-

(oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-

[methylenebis(2,1-phenyleneoxymethylene)]dioxirane; Phenol, polymer with formaldehyde, glycidether)

## Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane) May damage fertility. (Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2,2-((2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl)-2-hydroxy butane) Carcinogenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

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

### STOT-repeated exposure

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

#### Aspiration hazard

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

## **SECTION 12: Ecological information**



according to Regulation (EC) No 1907/2006

# Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 11 of 15

CAS No	Chemical name									
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method			
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1-(2,3-epoxypropoxy)-2- ((2,3-epoxypropoxy)methyl)-2-hydroxy butane									
	Acute fish toxicity LC50 75 mg/l 96 h Cyprinus carpio Study report OEC (1996) 203									
	Acute algae toxicity	ErC50	9 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2014)	OECD Guideline 201			
	Acute crustacea toxicity	EC50	3,7 mg/l	48 h	Daphnia magna	Study report (2015)	OECD Guideline 202			
28064-14-4	Phenol, polymer with formaldehyde, glycidether									
	Acute fish toxicity	LC50 mg/l	2,54	96 h	Leuciscus idus (golden orfe)	Supplier				
	Acute crustacea toxicity	EC50 mg/l	2,55	48 h	Daphnia magna (Big water flea)	Supplier				
78-93-3	butanone; ethyl methyl ketone									
	Acute fish toxicity	LC50 mg/l	2993	96 h	Pimephales promelas	Study report (1998)	OECD Guideline 203			
	Acute algae toxicity	ErC50 mg/l	2029	96 h	Pseudokirchneriella subcapitata	Study report (1998)	OECD Guideline 201			
	Acute crustacea toxicity	EC50	308 mg/l	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202			
	Acute bacteria toxicity	(1150 m	g/l)		Pseudomonas putida	Supplier				

## 12.2. Persistence and degradability

No information available.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation		-	
78-93-3	butanone; ethyl methyl ketone			
	OECD 301	98%	28	
	Readily biodegradable (according to OECD criteria).			

## 12.3. Bioaccumulative potential

No information available.

## Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1- (2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane	2,93 - 2530
78-93-3	butanone; ethyl methyl ketone	0,3

### 12.4. Mobility in soil

No information available.



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 12 of 15

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 12.6. Other adverse effects

No information available.

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

## **Disposal recommendations**

Dispose of waste according to applicable legislation.

#### Contaminated packaging

Non-contaminated packages may be recycled. Dispose of waste according to applicable legislation.

## **SECTION 14: Transport information**

Land transport (ADR/RID)	
<u>14.1. UN number:</u>	UN 1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Reaction mass of 1- (2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1- (2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label: Classification code: Special Provisions: Limited quantity: Excepted quantity: Transport category: Hazard No: Tunnel restriction code: Inland waterways transport (ADN)	8 C9 274 5 L E1 3 80 E
14.1. UN number:	UN 1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Reaction mass of 1- (2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1- (2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

#### Marine transport (IMDG)

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GB - EN



according to Regulation (EC) No 1907/2006

	Proguard CN-OC V12 K3 Part A	
Revision date: 06.12.2019		Page 13 of 15
14.1. UN number:	UN 1760	
<u>14.2. UN proper shipping name:</u>	CORROSIVE LIQUID, N.O.S. (Reaction mass of 1- (2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1- (2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	III	
Hazard label:	8	
Marine pollutant:	Р	
Special Provisions:	223, 274	
Limited quantity:	5 L	
Excepted quantity:	E1	
EmS:	F-A, S-B	
Segregation group:	alkalis	
Air transport (ICAO-TI/IATA-DGR)		
<u>14.1. UN number:</u>	UN 1760	
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Reaction mass of 1- (2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1- (2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane)	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	III	
Hazard label:	8	
Special Provisions:	A3 A803	
Limited quantity Passenger:	1 L	
Passenger LQ:	Y841	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:	852	
IATA-max. quantity - Passenger:	5 L	
IATA-packing instructions - Cargo:	856	
IATA-max. quantity - Cargo:	60 L	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	yes	
Danger releasing substance:	epoxy resin	
14.6. Special precautions for user		
No information available.		
14.7. Transport in bulk according to Annex No information available.	II of Marpol and the IBC Code	
SECTION 15: Regulatory information		
15.1 Safety health and environmental requ	lations/legislation specific for the substance or mixture	

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

## EU regulatory information



according to Regulation (EC) No 1907/2006

Proguard CN-OC V12 K3 Part A		
Revision date: 06.12.2019 Page 14 of 15		
Information according to 2012/18/EU (SEVESO III):	E2 Hazardous to the Aquatic Environment	
National regulatory information		
Employment restrictions: Water contaminating class (D):	Observe restrictions to employment for juvenils according to the 'juver work protection guideline' (94/33/EC). Observe employment restriction under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age. 2 - clearly water contaminating	
15.2. Chemical safety assessment		
For the following substances of this mixture a chemical safety assessment has been carried out: Reaction mass of 1-(2,3-epoxypropoxy)-2,2-bis ((2,3-epoxypropoxy)methyl) butane and 1- (2,3-epoxypropoxy)-2-((2,3-epoxypropoxy)methyl)-2-hydroxy butane Reaction mass of 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]dioxirane and [2-({ 2-[4- (oxiran-2-ylmethoxy)benzyl]phenoxy} methyl)oxirane and [2,2'-		

butanone; ethyl methyl ketone

[methylenebis(2,1-phenyleneoxymethylene)]dioxirane

## **SECTION 16: Other information**

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID:Règlement international conernat le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) CLP: Classification, labelling and Packaging REACH: Registration, Evaluation and Authorization of Chemicals GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals UN: United Nations CAS: Chemical Abstracts Service **DNEL: Derived No Effect Level** DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LC50: Lethal concentration, 50% LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration



according to Regulation (EC) No 1907/2006

## Proguard CN-OC V12 K3 Part A

Revision date: 06.12.2019

Page 15 of 15

BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container SVHC: Substance of Very High Concern

### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Corr. 1C; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Repr. 1B; H360F	Calculation method
Aquatic Chronic 2; H411	Calculation method

#### Relevant H and EUH statements (number and full text)

	· · · · · · · · · · · · · · · · · · ·
H225	Highly flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H360F	May damage fertility.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

### **Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)