

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.10.2021

Version number 6 (replaces version 5)

Revision: 29.04.2020

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

#### 1.1 Product identifier

**Trade name** Epoxy Flex PH, Komp. A**Article number:** 6250-59, 9483

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

No further relevant information available.

**Application of the substance / the mixture** Coating**Uses advised against** No further relevant information available.

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

**Manufacturer/Supplier:**

Remmers GmbH  
Bernhard-Remmers-Str. 13  
D-49624 Lönningen / Germany  
Tel.: +49(0)5432/83-0  
Fax: +49(0)5432/3985

Remmers (UK) Limited  
Unit 4, Lloyds Court  
Manor Royal, Crawley – West Sussex RH10 9QU  
fon +44 (0) 1293 594 010  
fax +44 (0) 1293 594 037

**Information department:**

Product Safety department: Phone: +44 (0) 1293 594 010  
Email: sales@remmers.co.ukk

#### 1.4 Emergency telephone number:

National Poisons Information Service (NPIS):  
In England and Wales: NHS 111 - dial 111  
In Scotland: NHS 24 - dial 111

24h-Transport Emergency Contact Phone Number:

within USA and Canada: 1-800-424-9300

outside USA and Canada: 001-703-527-3887

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
Muta. 2	H341 Suspected of causing genetic defects.
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS07 GHS08 GHS09

**Signal word** Warning**Hazard-determining components of labelling:**

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight  $\leq 700$ )  
2,3-epoxypropyl neodecanoate

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

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Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 1)

bisphenol F-(epichlorhydrin); epoxy resin(number average molecular weight<700)  
 1,6-Bis(2,3-epoxypropoxy)hexan  
 oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P201 Obtain special instructions before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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.

P391 Collect spillage.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Additional information:**

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

**2.3 Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures****Description:** Mixture of the substances listed below with harmless additions.

<b>Dangerous components [% w/w]:</b>		
CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26-XXXX	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight $\leq$ 700) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317, EUH205 Specific concentration limits: Skin Irrit. 2; H315: C $\geq$ 5 % Eye Irrit. 2; H319: C $\geq$ 5 %	$\geq$ 25-<40%
CAS: 26761-45-5 EINECS: 247-979-2 Reg.nr.: 01-2119431597-33-XXXX	2,3-epoxypropyl neodecanoate Muta. 2, H341; Aquatic Chronic 2, H411; Skin Sens. 1, H317	$\geq$ 5-<10%
CAS: 13463-67-7 EINECS: 236-675-5 Index number: 022-006-00-2 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide Carc. 2, H351	$\geq$ 2.5-<5%
CAS: 28064-14-4 NLP: 500-006-8 Reg.nr.: 01-2119454392-40-XXXX	bisphenol F-(epichlorhydrin); epoxy resin(number average molecular weight<700) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	$\geq$ 1-<2.5%

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 11.10.2021

Version number 6 (replaces version 5)

Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 2)

CAS: 16096-31-4 EINECS: 240-260-4 Reg.nr.: 01-2119463471-41-XXXX	1,6-Bis(2,3-epoxypropoxy)hexan Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	≥0.1-<1%
CAS: 68609-97-2 EINECS: 271-846-8 Index number: 603-103-00-4 Reg.nr.: 01-2119485289-22-XXXX	oxirane, mono[(C12-14-alkyloxy)methyl] derivs. Skin Irrit. 2, H315; Skin Sens. 1, H317	≥0.1-<1%

**Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

If symptoms occur or in case of doubt, seek medical attention. In case of unconsciousness, do not administer anything orally.

##### After inhalation

Take affected persons into the open air and position comfortably

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

##### After skin contact

If skin irritation continues, consult a doctor.

Wash immediately with water and soap and rinse thoroughly.

##### After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

##### After swallowing

Rinse out mouth immediately with plenty of water and administer plenty of water in small swallows (diluting effect).

A person vomiting while lying on their back should be turned onto their side.

Seek immediate medical advice.

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

No further relevant information available.

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

symptomatic treatment

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents** Use fire fighting measures that suit the environment.

**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

#### 5.3 Advice for firefighters

##### Protective equipment:

Wear full protective suit.

Wear self-contained breathing apparatus.

##### Additional information

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

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

Ensure adequate ventilation

#### 6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Do not allow product to reach sewage system or water bodies.

Inform responsible authorities in case product reaches bodies of water or sewage system.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

(Contd. on page 4)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 11.10.2021

Version number 6 (replaces version 5)

Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 3)

**6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Ensure good ventilation/exhaust in workplaces.

Open and handle container with care.

Avoid the formation of aerosols.

**Information about protection against explosions and fires:**

No special requirements.

Keep breathing equipment ready.

**7.2 Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and containers:** Prevent any penetration into the ground.**Information on storage in a common storage facility:** none**Further information about storage conditions:**

Protect from frost.

Keep container tightly closed.

**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Components with limit values that require monitoring at the workplace:****CAS: 13463-67-7 titanium dioxide**WEL Long-term value: 10\* 4\*\* mg/m<sup>3</sup>

\*total inhalable \*\*respirable

**Additional information:** The lists that were valid during compilation were used as a basis.**8.2 Exposure controls****Appropriate engineering controls** No further data; see item 7.**Individual protection measures, such as personal protective equipment****General protective and hygienic measures**

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

Keep away from food, beverages and animal feed.

Immediately remove soiled, saturated clothing.

Wash hands before pauses and after work.

Store protective clothing separately.

Avoid contact with eyes and skin.

The following indication regarding the personal protective equipment are to be considered as suggestions. The selection of the necessary personal protective equipment is to be evaluated by the employer depending on the types of operations and the local circumstances. If a risk assessment on-site shows that there is no risk for employees, the personal protective equipment is not required or the amount of the PPE can be adapted accordingly.

**Respiratory equipment:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution load, use respiratory protection equipment with filter. In case of intensive or longer exposure, use self-contained respiratory protection equipment.

**Hand protection**

Impervious gloves

Long cuffed gloves

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 11.10.2021

Version number 6 (replaces version 5)

Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 4)

substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye/face protection** Tightly sealed safety glasses.

**Body protection:** Protective work clothing.

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

**9.1 Information on basic physical and chemical properties****General Information**

<b>Colour:</b>	Different, according to dye
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>Melting point/freezing point:</b>	Not determined
<b>Boiling point or initial boiling point and boiling range</b>	Not determined
<b>Flammability</b>	Not applicable.
<b>Lower and upper explosion limit</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Flash point:</b>	>100 °C
<b>Decomposition temperature:</b>	> 200 °C
<b>pH</b>	Not determined.
<b>Viscosity:</b>	
<b>Kinematic viscosity</b>	Not determined.
<b>dynamic at 20 °C:</b>	2700-2900 mPas
<b>Solubility</b>	
<b>Water:</b>	Not miscible or difficult to mix
<b>Partition coefficient n-octanol/water (log value)</b>	> 3 log POW
<b>Vapour pressure:</b>	Not determined.
<b>Density and/or relative density</b>	
<b>Density at 20 °C:</b>	ca. 1.6 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.

**9.2 Other information**

<b>Appearance:</b>	
<b>Form:</b>	Viscous
<b>Important information on protection of health and environment, and on safety.</b>	
<b>Ignition temperature:</b>	not applicable
<b>Explosive properties:</b>	Product is not explosive.
<b>Solvent separation test</b>	< 3 %
<b>Change in condition</b>	
<b>Evaporation rate</b>	Not determined.

**Information with regard to physical hazard classes**

<b>Explosives</b>	Void
<b>Flammable gases</b>	Void
<b>Aerosols</b>	Void
<b>Oxidising gases</b>	Void
<b>Gases under pressure</b>	Void
<b>Flammable liquids</b>	Void
<b>Flammable solids</b>	Void
<b>Self-reactive substances and mixtures</b>	Void

(Contd. on page 6)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.10.2021

Version number 6 (replaces version 5)

Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 5)

<b>Pyrophoric liquids</b>	Void
<b>Pyrophoric solids</b>	Void
<b>Self-heating substances and mixtures</b>	Void
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
<b>Oxidising liquids</b>	Void
<b>Oxidising solids</b>	Void
<b>Organic peroxides</b>	Void
<b>Corrosive to metals</b>	Void
<b>Desensitised explosives</b>	Void

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if handled and stored according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:**

None if used properly.

None if stored properly.

## SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity:** Based on available data, the classification criteria are not met.**LD/LC50 values that are relevant for classification:****CAS: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight  $\leq 700$ )**

Oral LD50 &gt;10,000 mg/kg (rat)

Dermal LD50 &gt;2,000 mg/kg (rat)

**CAS: 26761-45-5 2,3-epoxypropyl neodecanoate**

Oral LD50 &gt;2,000 mg/kg (rat)

Dermal LD50 &gt;2,000 mg/kg (rabbit)

Inhalative LC50/4 h &gt;5 mg/l (rat)

**Skin corrosion/irritation:**

Causes skin irritation.

**Serious eye damage/irritation:**

Causes serious eye irritation.

**Sensitisation:**

May cause an allergic skin reaction.

**Germ cell mutagenicity:**

Suspected of causing genetic defects.

**Carcinogenicity:** Based on available data, the classification criteria are not met.**Reproductive toxicity:** 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.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

## \* SECTION 12: Ecological information

**12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.

(Contd. on page 7)

# Safety data sheet

according to 1907/2006/EC, Article 31

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Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 6)

**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects****Remark:** Toxic for fish**Additional ecological information:****General notes:**

Do not allow product to reach ground water, bodies of water or sewage system.

Hazardous to drinking water even if small quantities leak into soil.

Also toxic for fish and plankton in bodies of water.

Toxic for aquatic organisms

## SECTION 13: Disposal considerations

**Recommendation**

Do not dispose of together with household garbage. Do not allow product to reach sewage system.

The given refuse codes are recommendations based upon the intended use of the product. Because of special use and disposal conditions at the user's, other codes may apply under other conditions.

European waste catalogue
08 01 11* waste paint and varnish containing organic solvents or other hazardous substances

**Uncleaned packaging:****Recommendation:**

Disposal must be made according to official regulations.

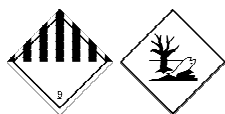
Packaging can be reused or recycled after cleaning.

\*

## SECTION 14: Transport information

**14.1 UN number or ID number****ADR, IMDG, IATA**

UN3082

**14.2 UN proper shipping name****ADR**3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin (reaction product: bisphenol A-(epichlorhydrin) (number average molecular weight  $\leq 700$ )))**IMDG**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin (reaction product: bisphenol A-(epichlorhydrin) (number average molecular weight  $\leq 700$ ))), 2,3-epoxypropyl neodecanoate), MARINE POLLUTANT**IATA**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin (reaction product: bisphenol A-(epichlorhydrin) (number average molecular weight  $\leq 700$ )))**14.3 Transport hazard class(es)****ADR****Class**

9 (M6) Miscellaneous hazardous substances and articles.

(Contd. on page 8)

# Safety data sheet

according to 1907/2006/EC, Article 31


Printing date 11.10.2021

Version number 6 (replaces version 5)

Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 7)

<b>Label</b>	9
<b>IMDG, IATA</b>	
	
<b>Class</b>	9 Miscellaneous hazardous substances and articles.
<b>Label</b>	9
<b>14.4 Packing group</b> <b>ADR, IMDG, IATA</b>	III
<b>14.5 Environmental hazards:</b>	Product contains environmentally hazardous substances: Epoxy Resin (reaction product: bisphenol A-(epichlorhydrin) (number average molecular weight $\leq 700$ ))
<b>Marine pollutant:</b>	Yes
<b>Special marking (ADR):</b>	Symbol (fish and tree)
<b>Special marking (IATA):</b>	Symbol (fish and tree)
<b>14.6 Special precautions for user</b>	Warning: Miscellaneous hazardous substances and articles.
<b>hazard identification number:</b>	90
<b>EMS Number:</b>	F-A,S-F
<b>Stowage Category</b>	A
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Limited quantities (LQ)</b>	5L
<b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>Transport category</b>	3
<b>Tunnel restriction code</b>	-
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	5L
<b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (REACTION PRODUCT: BISPHENOL A-(EPICHLORHYDRIN) (NUMBER AVERAGE MOLECULAR WEIGHT $\leq 700$ ))), 9, III

## SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category E2 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

(Contd. on page 9)



# Safety data sheet

## according to 1907/2006/EC, Article 31

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Version number 6 (replaces version 5)

Revision: 29.04.2020

Trade name **Epoxy Flex PH, Komp. A**

(Contd. of page 8)

<b>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</b>
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None of the ingredients is listed.
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**National regulations****Other regulations, limitations and prohibition ordinances**

APME document: "Epoxy resins and curing agents: Toxicology, working safety, environment."

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

<b>SECTION 16: Other information</b>
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Delivery specifications are found in the respective Technical Information Sheets.

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

**Relevant phrases**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

EUH205 Contains epoxy constituents. May produce an allergic reaction.

**Classification according to Regulation (EC) No 1272/2008** Calculation method**Department issuing data specification sheet:** Product Safety department / EHS**Version number of previous version:** 5**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 2: Carcinogenicity – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3