

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2023

Version number 6 (replaces version 5)

Revision: 19.06.2023

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

1.1 Product identifier

Trade name **PC S-Protect 2K Komp. A**

Article number: 0920

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

No further relevant information available.

Product category PC14 Metal surface treatment products

Application of the substance / the mixture Anticorrosion additive

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Remmers GmbH

Bernhard-Remmers-Str. 13
D-49624 Lönigen / 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

Flam. Liq. 3 H226 Flammable liquid and vapour.

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.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to the hearing organs through prolonged or repeated exposure.

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 GB CLP regulation.

Hazard pictograms



GHS02 GHS07 GHS08 GHS09

Signal word Warning

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2023

Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 1)

Hazard-determining components of labelling:

epoxy resin
 xylene
 reaction mass of ethylbenzene and xylene
 4-methylpentan-2-one

Hazard statements

H226 Flammable liquid and vapour.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.
 H373 May cause damage to the hearing organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read carefully and follow all instructions.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P260 Do not breathe 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.
 P314 Get medical advice/attention if you feel unwell.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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.

Dangerous components [% w/w]:		
CAS: 25036-25-3	epoxy resin Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	≥30-<40%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-XXXX	xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥10-<20%
EC number: 905-588-0 Reg.nr.: 01-2119539452-40-XXXX	reaction mass of ethylbenzene and xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≥5-<10%
CAS: 7779-90-0 EINECS: 231-944-3 Index number: 030-011-00-6	trizinc bis(orthophosphate) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥5-<10%
CAS: 108-10-1 EINECS: 203-550-1 Index number: 606-004-00-4 Reg.nr.: 01-2119473980-30-XXXX	4-methylpentan-2-one Flam. Liq. 2, H225; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335, EUH066 ATE: LC50/4 h inhalative: 11 mg/l	≥2.5-<5%

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2023

Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

		(Contd. of page 2)
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	≥1-<2.5%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 Reg.nr.: 01-2119463881-32-XXXX	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥0.25-≤0.5%
CAS: 60580-61-2 EINECS: 262-309-9 Reg.nr.: 01-2120768444-47-XXXX	Zinc 5-nitroisophthalate Aquatic Acute 1, H400; Aquatic Chronic 2, H411	≥0.1-<0.25%

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 When symptoms occur or in case of doubt, seek medical advice

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

Do not use solvents or thinners!

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 Seek immediate medical advice.

4.2 Most important symptoms and effects, both acute and delayed

In case of prolonged/repeated exposure or in high concentrations:

Headache

Dizziness

nausea

anaesthetic effect

Irritating effect on skin and eyes.

Irritating effect on respiratory organs.

4.3 Indication of any immediate medical attention and special treatment needed

symptomatic treatment

To avoid dermatitis (skin inflammation), use skin cream.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

May be released in case of fire

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

Hydrogen chloride (HCl)

Formation of poisonous gases during heating or in fires.

Vapours are heavier than air and spread out over the ground. Ignition over greater distances is possible.

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

Put on breathing apparatus.

Additional information

Cool endangered containers with water spray jet.

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

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2023

Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 3)

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

Keep away from ignition sources
 Ensure adequate ventilation
 Put on breathing apparatus.
 Wear protective equipment. Keep unprotected persons away.

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.

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

Use only in well ventilated areas.
 Ensure good ventilation/exhaust in workplaces.
 Avoid the formation of aerosols.

Information about protection against explosions and fires:

Fumes can combine with air to form an explosive mixture.
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
 Keep breathing equipment ready.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

Ventilate storage and work rooms sufficiently.
 Install solvent resistant, sealed floor.

Information on storage in a common storage facility: Store away from food.

Further information about storage conditions:

Store container in a well ventilated position.
 Protect from frost.
 Do not smoke in storage areas. Storage temperature: room temperature.
 Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with limit values that require monitoring at the workplace:	
CAS: 1330-20-7 xylene	
WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
CAS: 108-10-1 4-methylpentan-2-one	
WEL	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm Sk, BMGV
CAS: 100-41-4 ethylbenzene	
WEL	Short-term value: 552 mg/m ³ , 125 ppm Long-term value: 441 mg/m ³ , 100 ppm Sk

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2023

Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 4)

Ingredients with biological limit values:	
CAS: 1330-20-7 xylene	
BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
CAS: 108-10-1 4-methylpentan-2-one	
BMGV	20 µmol/L Medium: urine Sampling time: post shift Parameter: 4-methylpentan-2-one

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.

Apply solvent-resistant skin protection preparation before beginning work.

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:

Filter A (brown)

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

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

Butyl rubber, BR

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 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

Physical state

Fluid

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 19.06.2023

Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 5)

Colour:	Red-brown
Odour:	Aromatic
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	>100 °C
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	1 Vol %
Upper:	9 Vol %
Flash point:	28 °C (Setaflash 100 ml/)
Ignition temperature:	not applicable
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
dynamic at 20 °C:	1,500 mPas
Solubility	
Water:	Not miscible or difficult to mix
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	5 hPa
Density and/or relative density	
Density at 20 °C:	1.35 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Viscous
Important information on protection of health and environment, and on safety.	
Explosive properties:	Product is not explosive. However, formation of dangerous explosive vapour/air mixtures is possible.
Solvent separation test	< 3 %
Organic solvents:	24.0 %
VOC EU	
Solid content:	85.7 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 6)

Desensitised explosives

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.

Avoid: heat, flames, sparks

10.3 Possibility of hazardous reactions

Reacts with strong oxidising agents

Forms explosive gas mixture with air

Used empty containers may contain product gases which form explosive mixtures with air

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: 108-10-1 4-methylpentan-2-one**

Oral	LD50	2,100 mg/kg (rat)
Dermal	LD50	16,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE) 8.3-16.6 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:** Based on available data, the classification criteria are not met.**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:** May cause respiratory irritation.**STOT-repeated exposure:**

May cause damage to the hearing organs through prolonged or repeated exposure.

Aspiration hazard: Based on available data, the classification criteria are not met.**Experience with humans:**

Frequent or longer lasting skin contact may degrease and dry out skin which may lead to skin irritation and inflammation (dermatitis).

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.**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.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 7)

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**

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, ADN, IMDG	Void
IATA	UN1263
14.2 UN proper shipping name	
ADR, ADN, IMDG	Void
IATA	PAINT
14.3 Transport hazard class(es)	
ADR, ADN, IMDG	
Class	Void
IATA	
	
Class	3 Flammable liquids.
Label	3
14.4 Packing group	
ADR, IMDG	Void
IATA	III
14.5 Environmental hazards:	
Marine pollutant:	- No
14.6 Special precautions for user	Not applicable.
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
Transport/Additional information:	
ADR	
Remarks:	Transport according to annotations 2.2.3.1.5 ADR because of high viscosity

(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: 19.06.2023

Trade name **PC S-Protect 2K Komp. A**

(Contd. of page 8)

IMDG Remarks:	Transport in accordance with paragraph 2.3.2.5 of the IMDG Code
UN "Model Regulation":	Void

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

P5c FLAMMABLE LIQUIDS

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

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

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.

SECTION 16: Other information

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. Delivery specifications are found in the respective Technical Information Sheets.

Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

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.

EUH066 Repeated exposure may cause skin dryness or cracking.

Classification according to Regulation (EC) No 1272/2008 Calculation method

Department issuing data specification sheet: Product Safety department / EHS

Date of previous version: 14.08.2020

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)

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 6 (replaces version 5)

Revision: 19.06.2023

Trade name PC S-Protect 2K Komp. A

(Contd. of page 9)

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

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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