

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

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

- **1.1 Product identifier**
- **Trade name:** HADALAN VS-E 12E, Komp. A
- **Article number:** 40312A
- **UFI:** ED70-Q04E-K002-QKA8
- **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**  
Solvent-free, elastic 2-component epoxy resin floor coating - component A.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Sievert Baustoffe GmbH & Co. KG  
Mühlenschweg 6  
D-49090 Osnabrück  
Tel.: +49 2363 5663-0
- **Further information obtainable from:**  
Abteilung: Produktsicherheit  
Tel. +49 2363 5663-0  
info-hahne@sievert.de
- **1.4 Emergency telephone number:**  
Gif tinformat ionszentrum Nord (GIZ Nord) Universität Göttingen,  
Tel.: 0551-19240

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

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.

- **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



GHS09

- **Signal word** Warning

(Contd. on page 2)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 1)

- **Hazard-determining components of labelling:**

bis[4-(2,3-epoxypropoxy)phenyl]propane  
formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol  
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.  
H411 Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

P262 Do not get in eyes, on skin, or on clothing.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P360 Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

- **Additional information:**

Contains epoxy constituents. May produce an allergic reaction.  
Safety data sheet available on request.  
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 Chemical characterisation: Mixtures**

- **Description:** Mixture of the substances listed below with harmless additions

- **Dangerous components:**

CAS: 1675-54-3 EINECS: 216-823-5	bis[4-(2,3-epoxypropoxy)phenyl]propane ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	2.5-50%
CAS: 9003-36-5	formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	2.5-10%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	2.5-10%
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide ⚠ Carc. 2, H351	2.5-10%

- **Additional information:**

For the wording of the listed hazard phrases refer to section 16.  
GHS CODE: RE 1 (Komp. A + B)

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:** Remove contaminated clothing immediately.

- **After inhalation:**

Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

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

- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

(Contd. on page 3)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 2)

- **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**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
Use fire extinguishing methods suitable to surrounding conditions.  
not applicable, product is not flammable  
Foam (alcohol resistant); Carbon dioxide, powder, spray mist
- **For safety reasons unsuitable extinguishing agents:** Full water jet.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** In the event of fire: Use breathing protection with an independent fresh air supply.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Keep people away, ensure adequate ventilation.
- **6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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 disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Store in a cool, dry place in tightly closed containers.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store container in a cool, well-ventilated place.
- **Information about storage in one common storage facility:** Store away from food, drink and animal feed.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** VCI: 10
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

**13463-67-7 titanium dioxide (2.5-10%)**

WEL	Long-term value: 10* 4** mg/m <sup>3</sup> *total inhalable **respirable
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- **Additional information:** The lists valid during the making were used as basis.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 3)

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required with good ventilation.
- **Protection of hands:**  
Protective gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  
Wear nitrile gloves with a layer thickness of > 0.4 mm (penetration time > = 480 minutes - see also [www.gisbau.de](http://www.gisbau.de))
- **Material of gloves**  
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 exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles
- **Body protection:** Protective work clothing

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	according to product name
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
- **pH-value:** n.a.
- **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	>200 °C
- **Flash point:** Not applicable.
- **Flammability (solid, gas):** Not applicable.
- **Ignition temperature:** 450 °C
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
- **Vapour pressure:** Not determined.

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 4)

· <b>Density at 20 °C:</b>	1.6 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Solids content:</b>	100.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### 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 used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Exothermic reactions with amines. Process quickly after adding the hardener, as high temperatures can be reached during the hardening process.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Keep away from strongly acidic and alkaline materials as well as oxidizing agents in order to avoid exothermic reactions.
- **10.6 Hazardous decomposition products:**  
At high temperatures, carbon dioxide, carbon monoxide, smoke and nitrogen oxides can be produced.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**  
Acute oral toxicity  
Very low oral toxicity. Harmful effects are produced if small amounts are swallowed not expected.  
As a product. Oral LD50 (single dose) has not been determined. Based on Information for component (s):  
LD50, rat, > 10,000 mg / kg (estimated)  
Acute dermal toxicity  
Skin resorption of harmful amounts is unlikely after prolonged exposure.  
As a product. Dermal LD50: not determined. Based on information for component (s):  
LD50, rabbit, > 5,000 mg / kg (estimated)  
Acute inhalation toxicity  
Excessive exposure may cause upper respiratory tract irritation.  
The LC50 has not been determined.
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 5)

- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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** 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

### · 12.1 Toxicity

2,2'-((1-methylethylidene) bis(4,1-phenyleneoxymethylene)) bis-oxirane

Acute fish toxicity

The product is toxic to aquatic organisms (LC50 / EC50 / IC50 between 1 and 10 mg / l for the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), semi-static test, 96 h, 2 mg / l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Big water flea), static test, 48 h, 1.8 mg / l

Acute toxicity to algae / aquatic plants

ErC50, *Scenedesmus capricornutum* (freshwater algae), static test, 72 h, inhibition of the growth rate, 11 mg / l

Toxicity to bacteria

IC50, bacteria, 18 h, > 42.6 mg / l

Chronic toxicity to aquatic invertebrates

MATC value (Maximum Acceptable Toxicant Level), *Daphnia magna* (Large water flea), semi-static

Test, 21 d, number of offspring, 0.55 mg / l

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Acute fish toxicity

The product is toxic to aquatic organisms (LC50 / EC50 / IC50 between 1 and 10 mg / l for the most sensitive species).

LC50, freshwater fish, 96 h, 2.54 mg / l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna*, static, 48 h, > 1,000 mg / l, OECD Test Guideline 202 or equivalent

Acute toxicity to algae / aquatic plants

EC50, *Selenastrum capricornutum* (green algae), static, 72 h, > 1.8 mg / l, OECD test guideline 201

Toxicity to bacteria

Activated sludge, static, 3 h, other, > 100 mg / l

Chronic toxicity to aquatic invertebrates

NOEC, *Daphnia magna*, semi-static test, 21 d, number of offspring, 0.3 mg / l

Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives

Acute fish toxicity

The material is not harmful to aquatic organisms (LC50 / EC50 / IC50 / LL50 / EL50 > 100 mg / L for the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), static test, 96 h, > 5,000 mg / l

LC50, *Lepomis macrochirus* (blue sunfish), static test, 96 h, 1,800 mg / l, other guidelines

Acute toxicity to algae / aquatic plants

EbC50, *Pseudokirchneriella subcapitata* (green algae), 72 h, growth inhibition (reduction in Cell density), 843 mg / l

NOEC, *Pseudokirchneriella subcapitata* (green algae), 72 h, growth inhibition (reduction in Cell density), 500 mg / l

Toxicity to bacteria

EC50, activated sludge, static test, 3 h, breathing rate., > 100 mg / l

- **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

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, 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.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
  - **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
  - **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.

### SECTION 14: Transport information

- |   |  |
|---|--|
| · <b>14.1 UN-Number</b>   | UN3082   |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <b>14.2 UN proper shipping name</b>   | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis[4-(2,3-epoxypropoxy)phenyl]propane, formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)              |
| · <b>ADR</b>  |  |
| · <b>IMDG</b>   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis[4-(2,3-epoxypropoxy)phenyl]propane, formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), MARINE POLLUTANT |
| · <b>IATA</b>   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis[4-(2,3-epoxypropoxy)phenyl]propane, formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)                   |
| · <b>14.3 Transport hazard class(es)</b>  |  |
| · <b>ADR, IMDG, IATA</b>  |  |
|  |  |
| · <b>Class</b>  | 9 Miscellaneous dangerous substances and articles.   |
| · <b>Label</b>  | 9  |

(Contd. on page 8)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 7)

· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	<b>III</b>
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b> · <b>Special marking (ADR):</b> · <b>Special marking (IATA):</b>	<b>Symbol (fish and tree)</b> <b>Symbol (fish and tree)</b> <b>Symbol (fish and tree)</b>
· <b>14.6 Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>Stowage Category</b>	<b>Warning: Miscellaneous dangerous substances and articles.</b> <b>90</b> <b>A</b>
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	<b>Not applicable.</b>
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <b>Maximum net quantity per inner packaging: 30 ml</b> <b>Maximum net quantity per outer packaging: 1000 ml</b>
· <b>Transport category</b> · <b>Tunnel restriction code</b>	<b>3</b> <b>E</b>
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <b>Maximum net quantity per inner packaging: 30 ml</b> <b>Maximum net quantity per outer packaging: 1000 ml</b>
· <b>UN "Model Regulation":</b>	<b>UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BIS[4-(2,3-EPOXYPROPOXY)PHENYL]PROPANE, FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL), 9, III</b>

### 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

· **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.

· **National regulations:**

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

· **Other regulations, limitations and prohibitive regulations**

Regular occupational medical examinations must be arranged for activities involving exposure to uncured epoxy resins and contact via the skin or the respiratory tract.

(Contd. on page 9)



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.07.2021

Revision: 30.09.2020

Trade name: **HADALAN VS-E 12E, Komp. A**

(Contd. of page 8)

· **Substances of very high concern (SVHC) according to REACH, Article 57**

Das Produkt unterliegt der RL 2004/42/EG.

EU-Grenzwert dieses Produktes ist im gebrauchtfertigen Zustand: Kat A/j max. 500 g/l (2010). Das Produkt enthält im gebrauchtfertigen Zustand: max. 1 g/l VOC.

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

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall 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.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport 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)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

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

Carc. 2: Carcinogenicity – Category 2

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