

## FI04 - FIBRO HFR LIQUID COMPONENT

## Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

## 1.1. Product identifier

Code: FI04  
Product name: FIBRO HFR LIQUID COMPONENT

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

Intended use: Liquid component of the fibre-reinforced FIBRO HFR pourable mortar

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

Name: VOLTECO S.P.A  
Full address: via delle industrie 47  
District and Country: 31050 Ponzano Veneto (TV)  
Italia  
Tel.: 04229663  
e-mail address of the competent person responsible for the Safety Data Sheet: volteco@volteco.it

## 1.4. Emergency telephone number

For urgent inquiries refer to:  
European emergency phone number 112  
Volteco - +39-0422-9663  
Ireland  
Poison information centre: 01 809 2166 (Daily 8am-10pm) In case of emergency call 999 or 112  
Malta  
In case of emergency call: +356 2395 2000 (24h)

## SECTION 2. Hazards identification

## 2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2020/878.

Hazard classification and indication: --

## 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal word: --

Hazard statements:  
EUH210 Safety data sheet available on request.

Precautionary statements: --

## 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

| Identification                   | x = Conc. %      | Classification (EC) 1272/2008 (CLP) |
|----------------------------------|------------------|-------------------------------------|
| <b>2-(2-butoxyethoxy)ethanol</b> |                  |                                     |
| INDEX 603-096-00-8               | $4 \leq x < 4,5$ | <b>Eye Irrit. 2 H319</b>            |
| EC 203-961-6                     |                  |                                     |
| CAS 112-34-5                     |                  |                                     |
| REACH Reg. 01-2119475101-44-XXXX |                  |                                     |

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures****4.1. Description of first aid measures**

No effects requiring implementation of special first aid measures are expected. The following information represents practical indications of correct behaviour in the event of contact with a chemical product, even if not hazardous.

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

## SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

## UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

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

## HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

**FI04 - FIBRO HFR LIQUID COMPONENT****SECTION 5. Firefighting measures ... / >>****5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

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

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s)**

Information not available

**SECTION 8. Exposure controls/personal protection****8.1. Control parameters**

Regulatory references:

| EU | OEL EU |                                                                                                                                                                                                                                                                                            |
|----|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |        | Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC. |

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## SECTION 8. Exposure controls/personal protection ... / &gt;&gt;

## 2-(2-butoxyethoxy)ethanol

## Threshold Limit Value

| Type | Country | TWA/8h            | STEL/15min        | Remarks / Observations |
|------|---------|-------------------|-------------------|------------------------|
|      |         | mg/m <sup>3</sup> | mg/m <sup>3</sup> |                        |
|      |         | ppm               | ppm               |                        |
| OEL  | EU      | 67,5              | 10                |                        |

## Predicted no-effect concentration - PNEC

|                                                       |     |       |
|-------------------------------------------------------|-----|-------|
| Normal value in fresh water                           | 1,1 | mg/l  |
| Normal value in marine water                          | 11  | mg/l  |
| Normal value for fresh water sediment                 | 4,4 | mg/kg |
| Normal value for marine water sediment                | 440 | µg/kg |
| Normal value for marine water, intermittent release   | 110 | µg/L  |
| Normal value of STP microorganisms                    | 200 | mg/l  |
| Normal value for the food chain (secondary poisoning) | 200 | mg/l  |
| Normal value for the terrestrial compartment          | 320 | µg/kg |
| Normal value for the atmosphere                       | NPI |       |

## Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |          | Effects on workers |          |             |                   |          |
|-------------------|----------------------|----------|--------------------|----------|-------------|-------------------|----------|
|                   | Acute                | Acute    | Chronic            | Chronic  | Acute local | Acute             | Chronic  |
|                   | local                | systemic | local              | systemic | systemic    | local             | systemic |
| Oral              |                      |          | 5                  |          |             |                   |          |
|                   |                      |          | mg/Kg/day          |          |             |                   |          |
| Inhalation        |                      |          | 40,5               |          |             | 67,5              |          |
|                   |                      |          | mg/m <sup>3</sup>  |          |             | mg/m <sup>3</sup> |          |
| Skin              |                      |          | 50                 |          |             | 83                |          |
|                   |                      |          | mg/Kg/day          |          |             | mg/Kg/day         |          |

## Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard

; MED = medium hazard ; HIGH = high hazard.

## 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

## HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

## SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

## EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

## RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

## ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

| Properties                     | Value         | Information |
|--------------------------------|---------------|-------------|
| Appearance                     | liquid        |             |
| Colour                         | milky         |             |
| Odour                          | mild          |             |
| Melting point / freezing point | not available |             |
| Initial boiling point          | not available |             |
| Flammability                   | not available |             |
| Lower explosive limit          |               |             |

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## SECTION 9. Physical and chemical properties ... / &gt;&gt;

|                                        |                |       |
|----------------------------------------|----------------|-------|
| Upper explosive limit                  | not available  |       |
| Flash point                            | not available  |       |
| Auto-ignition temperature              | > 60           | °C    |
| Decomposition temperature              | not available  |       |
| pH                                     | not available  |       |
| Kinematic viscosity                    | not available  |       |
| Solubility                             | not available  |       |
| Partition coefficient: n-octanol/water | not available  |       |
| Vapour pressure                        | not available  |       |
| Density and/or relative density        | 1              | g/cm3 |
| Relative vapour density                | not available  |       |
| Particle characteristics               | not applicable |       |

## 9.2. Other information

## 9.2.1. Information with regard to physical hazard classes

Information not available

## 9.2.2. Other safety characteristics

Information not available

## SECTION 10. Stability and reactivity

## 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

## 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

## 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

## 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

## 10.5. Incompatible materials

2-(2-butoxyethoxy)ethanol

Incompatible with: strong acids, strong bases, strong oxidising agents.

## 10.6. Hazardous decomposition products

2-(2-butoxyethoxy)ethanol

In decomposition develops: carbon oxides.

## SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

**FI04 - FIBRO HFR LIQUID COMPONENT****SECTION 11. Toxicological information ... / >>**

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture:       | Not classified (no significant component) |
| ATE (Dermal) of the mixture:     | Not classified (no significant component) |

|                           |                     |
|---------------------------|---------------------|
| 2-(2-butoxyethoxy)ethanol |                     |
| LD50 (Dermal):            | 2700 mg/kg (rabbit) |
| LD50 (Oral):              | 5660 mg/kg (Rat)    |

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**11.2. Information on other hazards**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

**SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

**12.1. Toxicity**

**FI04 - FIBRO HFR LIQUID COMPONENT****SECTION 12. Ecological information ... / >>**

2-(2-butoxyethoxy)ethanol

LC50 - for Fish

EC50 - for Crustacea

1,3 g/l/96h *Lepomis macrochirus*100 mg/l/48h *Daphnia magna***12.2. Persistence and degradability**

2-(2-butoxyethoxy)ethanol

Rapidly degradable

**12.3. Bioaccumulative potential**

2-(2-butoxyethoxy)ethanol

Partition coefficient: n-octanol/water

1

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.**12.6. Endocrine disrupting properties**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

**12.7. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

**14.1. UN number or ID number**

not applicable

**14.2. UN proper shipping name**

not applicable

**14.3. Transport hazard class(es)**

not applicable

**14.4. Packing group**

not applicable

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## SECTION 14. Transport information ... / &gt;&gt;

## 14.5. Environmental hazards

not applicable

## 14.6. Special precautions for user

not applicable

## 14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: NoneRestrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Contained substance

|       |       |                                                                |
|-------|-------|----------------------------------------------------------------|
| Point | 55-75 | 2-(2-butoxyethoxy)ethanol<br>REACH Reg.: 01-2119475101-44-XXXX |
|-------|-------|----------------------------------------------------------------|

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

## 15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

2-(2-butoxyethoxy)ethanol

## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|                     |                                         |
|---------------------|-----------------------------------------|
| <b>Eye Irrit. 2</b> | Eye irritation, category 2              |
| <b>H319</b>         | Causes serious eye irritation.          |
| <b>EUH210</b>       | Safety data sheet available on request. |

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008

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## SECTION 16. Other information ... / &gt;&gt;

- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

## GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
27. Delegated Regulation (UE) 2024/2564 (XXII Atp. CLP)
28. Regulation (EU) 2024/2865

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

## Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the

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suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.