

# ETHYLENE DICHLORIDE (EDC)

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

### 1.1. Product identifier

Product name: Ethylene dichloride (EDC)  
CAS Number: 107-06-2  
EC Number: 203-458-1

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

Product use: Industrial purposes, Isolated intermediate  
Restricted to professional users.

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

Company name: East Harbour Group Ltd  
20 Clough Road, Severalls Industrial Park  
Colchester, Essex, CO4 9QS  
United Kingdom

Telephone: +44 (0) 333 242 0100  
Email: [info@eastharbourgroup.com](mailto:info@eastharbourgroup.com)

### 1.4 Emergency telephone number

Emergency telephone: 0800 246 1274

## Section 2: Hazardous identification

### 2.1 Classification of the substance or mixture

**Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.**

Flam. Liq. 2; H225, Highly flammable liquid and vapour.

Acute Tox. 4; H302, Harmful if swallowed.

Skin Irrit. 2; H315, Causes skin irritation.

Eye Irrit. 2; H319, Causes serious eye irritation.

STOT SE 3; H335, May cause respiratory irritation.

Carc. 1B; H350, May cause cancer.

### 2.2 Label elements

Pictogram



Signal word

Danger

### Hazard statement(s)

Highly flammable liquid and vapour. (H225)

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Harmful if swallowed. (H302)  
 Causes skin irritation. (H315)  
 Causes serious eye irritation. (H319)  
 May cause respiratory irritation. (H335)  
 May cause cancer. (H350)

## Precautionary statement(s)

### General

-

### Prevention

Obtain special instructions before use. (P201)  
 Wear face protection/protective gloves/protective clothing. (P280)

### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 (P305+P351+P338)

### Storage

IF exposed or concerned: Get medical advice/attention. (P308+P313)

### Disposal

Store in a well-ventilated place. Keep cool. (P403+P235)

Dispose of contents/container in accordance with local regulation (P501)

## Hazardous substances

1,2-dichlorethan

## Additional labelling

Restricted to professional users.

UFI: 4489-SHUG-WVGS-U2YD

## 2.3. Other hazards

### Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## Section 3: Composition/information on ingredients

### 3.1. Substances

Product/substance	Identifiers	% w/w	Classification	Note
1,2-dichlorethan	CAS No.: 107-06-2 EC No.: 203-458-1 UK-REACH: Index No.: 602-012-00-7	100 %	Flam. Liq. 2, H225 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Carc. 1B, H350	[1], [2], [4], [5]

### 3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

## Other information

[1] European occupational exposure limit.

[2] Substance is on the list of substances subject to authorization under the UK REACH Regulations (Annex XIV).

[4] Substance is listed in Annex I of the Prior Informed Consent Regulation (PIC, Regulation (EU) 649/2012).

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[5] Substance is included in the Candidate List of substances of very high concern (SVHC).

## Section 4: First aid measures

### 4.1 Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

#### Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.

#### Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

#### Ingestion

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

#### Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

#### Irritation effects

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

#### Neurotoxic effects

This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned:  
Get immediate medical advice/attention.

#### Information to medics

Bring this safety data sheet or the label from this product.

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## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water mist.

#### Unsuitable extinguishing media

Waterjets should not be used, since they can spread the fire.

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

Highly flammable liquid and vapour.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fireextinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Halogenated compounds

Carbon oxides (CO / CO<sub>2</sub>)

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Hazchem Code: 2YE

## Section 6: Accidental release measures

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

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it.

Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

Contaminated areas may be slippery.

### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

Ground and bond container and receiving equipment.

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Use explosion-proof [electrical/lighting/ventilating] equipment.  
 Use non-sparking tools.  
 Take action to prevent static discharges.  
 Avoid direct contact with the product.  
 Avoid contact during pregnancy and while nursing.  
 Smoking, drinking and consumption of food is not allowed in the work area.  
 See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.  
 Take action to prevent static discharges.  
 Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

#### Recommended storage material

Keep only in original packaging.

#### Storage temperature

Dry, cool and well ventilated

#### Incompatible materials

Alkaline metals

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

1,2-dichlorethan

Long term exposure limit (8 hours) (ppm): 5

Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 21

Annotations

Carc = Capable of causing cancer and/or heritable genetic damage.

Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.  
 EH40/2005 Workplace exposure limits (Fourth Edition 2020).

### DNEL

1,2-dichlorethan

Duration:	Route of exposure	DNEL
Long term - Systemic effects - Workers	Dermal	62.4 mg/kg bw/day
Long term - Systemic effects - Workers	Dermal	62,4 mg/kg bw/day
Long term - Systemic effects - General population	Inhalation	2.9 µg/m <sup>3</sup>
Long term - Systemic effects - Workers	Inhalation	6.6 mg/m <sup>3</sup>
Long term - Systemic effects - Workers	Inhalation	6.6 mg/m <sup>3</sup>

### PNEC

1,2-dichlorethan

Route of exposure	Duration of Exposure	PNEC
Air		3.4 µg/m <sup>3</sup>
Freshwater		1.1 mg/L
Freshwater		1,1 mg/l
Freshwater sediment		11.1 mg/kg
Freshwater sediment		11,1 mg/kg dw
Intermittent release (freshwater)		1.36 mg/L

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Marine water		110 µg/L
Marine water		110 µg/l
Marine water sediment		1.11 mg/kg
Marine water sediment		1,11 mg/kg dw
Predators		8.33 mg/kg
Sewage treatment plant		27.8 mg/L
Sewage treatment plant		27, 8 mg/l
Soil		1.8 mg/kg

### 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

#### General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

#### Exposure scenarios

There are no exposure scenarios implemented for this product.

#### Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure.

See occupational hygiene limit values above.

#### Appropriate technical measures

Do not recirculate outlet air that contain the substances.

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended.

Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product.

Avoid inhalation of vapours.

#### Hygiene measures

Take off contaminated clothing and wash it before reuse.

#### Measures to avoid environmental Exposure


Keep damming materials near the workplace. If possible, collect spillage during work.

#### Individual protection measures, such as personal protective equipment


##### Generally

Use only UKCA marked protective equipment.

#### Respiratory Equipment

Type	Class	Colour	Standards	
A	Class 3 (High Capacity)	Brown	EN14387	

#### Skin protection



Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

#### Hand protection


Material	Glove thickness (mm)	Breakthrough time	Standards	
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		<b>(min.)</b>		
Butyl	0.7	> 480	EN374-2, EN374-3, EN388, EN421	
Nitrile	0.2	> 480	EN374-2, EN374-3, EN388	

## Eye protection

Type	Standards	
Face shield alternatively safety glasses with side shields	EN166	

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour / Odour threshold</b>	Chloroform
<b>pH</b>	Testing not relevant or not possible due to the nature of the product.
<b>Density (g/cm³)</b>	1.25
<b>Kinematic viscosity</b>	Testing not relevant or not possible due to the nature of the product.
<b>Particle characteristics</b>	Not applicable - product is a liquid.

<b>Phase changes</b>	
<b>Melting point/Freezing point (°C)</b>	- 36 °C
<b>Softening point/range (waxes and pastes) (°C)</b>	Does not apply to liquids.
<b>Boiling point (°C)</b>	83.6
<b>Vapour pressure</b>	102.47 hPa (25 °C)
<b>Relative vapour density</b>	Testing not relevant or not possible due to the nature of the product.
<b>Decomposition temperature (°C)</b>	Testing not relevant or not possible due to the nature of the product.

### Data on fire and explosion hazards

<b>Flash point (°C)</b>	13
<b>Flammability (°C)</b>	The material is ignitable.
<b>Auto-ignition temperature (°C)</b>	440
<b>Lower and upper explosion limit (% v/v)</b>	6.2 - 16

### Solubility

<b>Solubility in water</b>	7,9 g/L
<b>n-octanol/water coefficient (LogKow)</b>	1.45

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**Solubility in fat (g/L)**

Testing not relevant or not possible due to the nature of the product.

**9.2. Other information****Oxidizing properties**

Testing not relevant or not possible due to the nature of the product.

**Other physical and chemical parameters**

No data available.

### Section 10: Stability and Reactivity

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

The product is stable under the conditions, noted in section 7 "Handling and storage".

**10.3. Possibility of hazardous reactions**

None known.

**10.4. Conditions to avoid**

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

Sunlight

Moisture

**10.5. Incompatible materials**

Alkaline metals

Strong oxidizing agents

**10.6. Hazardous decomposition products**

The product is not degraded when used as specified in section 1.

### Section 11: Toxicological Information

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law****Acute toxicity****Product/substance**

1,2-dichlorethan

**Test method**

OECD 401

**Species**

Mouse

**Route of exposure**

Oral

**Test**

LD50

**Result**

413 mg/kg

**Product/substance**

1,2-dichlorethan

**Test method**

OECD 403

**Species**

Rat

**Route of exposure**

Inhalation

**Test**

LC50

**Result**

7.8 mg/l

**Product/substance**

1,2-dichlorethan



## ETHYLENE DICHLORIDE (EDC)

<b>Test method</b>	OECD 402
<b>Species</b>	Rat
<b>Route of exposure</b>	Dermal
<b>Test</b>	LD50
<b>Result</b>	4890 mg/kg

Harmful if swallowed.

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory sensitisation**

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

**Skin sensitisation**

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

**Germ cell mutagenicity**

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

**Carcinogenicity**

May cause cancer.

**Reproductive toxicity**

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

**STOT-single exposure**

May cause respiratory irritation.

**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****Long term effects**

Carcinogenic effects: This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.

**Irritation effects**

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

**Neurotoxic effects**

This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

## ETHYLENE DICHLORIDE (EDC)

### Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

### Other information

1,2-dichlorethan has been classified by IARC as a group 2B carcinogen.

## Section 12: Ecological Information

### 12.1 Toxicity

#### Product/substance

1,2-dichlorethan

#### Test method

OECD 203

#### Species

Fish, Pimephales promelas

#### Duration

No data available.

#### Test

LC50

#### Result

136 mg/l

#### Product/substance

1,2-dichlorethan

#### Test method

OECD 201

#### Species

Algae, Desmodesmus subspicatus

#### Duration

No data available.

#### Test

EC50

#### Result

166 mg/l

#### Product/substance

1,2-dichlorethan

#### Species

Crustacean, Daphnia magna

#### Duration

No data available.

#### Test

EC50

#### Result

160 mg/l

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

### 12.7. Other adverse effects

None known.

# ETHYLENE DICHLORIDE (EDC)

## Section 13: Disposal considerations

### Waste treatment methods

Product is covered by the regulations on hazardous waste. (\*)

HP 3 Flammable

HP 4 Irritant (skin irritation and eye damage)

HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP 6 Acute toxicity

HP 7 Carcinogenic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

### EWC code

16 03 05\* Organic wastes containing dangerous substances

### Specific labelling

#### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## Section 14: Transport Information

### 14.1 UN-Number

ADR, IMDG, IATA

UN1184

### 14.2 UN proper shipping name

ADR

IMDG

IATA

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### 14.3 Hazard class(es)

ADR

Transport hazard class: 3

Label: 3+6.1

Classification code: FT1



IMDG

Transport hazard class: 3

Label: 3+6.1

Classification code: FT1



IATA

Transport hazard class: 3

Label: 3+6.1

Classification code: FT1



### 14.4 Packing Group

ADR

IMDG

IATA

II

II

II

### 14.5 Environmental hazards

ADR

IMDG

No

No

## ETHYLENE DICHLORIDE (EDC)

**IATA**

No

**Other information****ADR**

Limited quantities: 1L  
Tunnel restriction code: (D/E)  
See below for additional information.

**IMDG**

Limited quantities: 1L  
EmS: F-E S-D  
See below for additional information.

**IATA**

See below for additional information.

**Additional information**

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: 2YE

**14.6. Special precautions for user**

Not applicable.

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

No data available.

### Section 15: Regulatory Information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

**Demands for specific education**

No specific requirements.

**SEVESO - Categories / dangerous substances**

P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lowertier): 5.000 tonnes / (upper-tier): 50.000 tonne

**UK-REACH, Annex XVII**

1,2-dichlorethan is subject to UK-REACH restrictions, UK-REACH annex XVII (entry 40).

**Additional information**

Not applicable.

**Sources**

The Management of Health and Safety at Work Regulations 1999.

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The Health and Safety at Work etc. Act 1974 Regulations 2013.  
Control of Major Accident Hazards (COMAH) Regulations 2015.  
Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals as retained and amended in UK law.  
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.  
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.  
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

### 15.2. Chemical safety assessment

No

### Section 16: Other Information

#### Full text of H-phrases as mentioned in section 3

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H350	May cause cancer.

#### Abbreviations and acronyms

ADN	European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CE	Conformité Européenne (European conformity)
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EINECS	European Inventory of Existing Commercial chemical Substances
ES	Exposure Scenario
EUH statement	CLP-specific Hazard statement
EuPCS	European Product Categorisation System
EWC	European Waste Catalogue
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer (IARC)
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IMDG	International Maritime Dangerous Goods
LogPow	logarithm of the octanol/water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD	Organisation for Economic Co-operation and Development

## ETHYLENE DICHLORIDE (EDC)

<b>PBT</b>	Persistent, Bioaccumulative and Toxic
<b>PNEC</b>	Predicted No Effect Concentration
<b>RID</b>	The Regulations concerning the International Carriage of Dangerous Goods by Rail
<b>RRN</b>	REACH Registration Number
<b>SCL</b>	A specific concentration limit
<b>SVHC</b>	Substances of Very High Concern
<b>STOT-RE</b>	Specific Target Organ Toxicity - Repeated Exposure
<b>STOT-SE</b>	Specific Target Organ Toxicity - Single Exposure
<b>TWA</b>	Time weighted average
<b>UN</b>	United Nations
<b>UVBC</b>	Unknown or variable composition, complex reaction products or of biological materials
<b>VOC</b>	Volatile Organic Compound
<b>vPvB</b>	Very Persistent and Very Bioaccumulative

### Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the mixture in regard to physical hazards has been based on experimental data.