

# Hranifix Smart

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Issue date: 23/01/2019

Revision date: 14/04/2022

Supersedes version of: 03/03/2021

Version: 3.0

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

### 1.1. Product identifier

Product form : Mixture  
 Product name : Hranifix smart 17/47,5 kg  
 UFI : RH03-005P-V00A-6Q4D

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

#### 1.2.1. Relevant identified uses

Main use category : Industrial use  
 Use of the substance/mixture : adhesives

#### 1.2.2. Uses advised against

No additional information available

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

#### Distributor

Hranipex Czech Republic k.s.  
 J. Rýznerové 97, Komorovice  
 CZ- 396 01 Humpolec  
 Czech Republic  
 T 565 501 210  
[help@ecomole.com](mailto:help@ecomole.com) - [www.hranipex.cz](http://www.hranipex.cz)

#### Supplier

Hranipex Ltd.  
 Unit 2 Radial Park, Birmingham Business Park  
 Birmingham, B37 7YN  
 United Kingdom  
 T 0121 767 9180 - F 0121 782 6250  
[hranipex@hranipex.co.uk](mailto:hranipex@hranipex.co.uk) - [www.hranipex.co.uk](http://www.hranipex.co.uk)

### 1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX Llandough	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB Newcastle	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	Only for healthcare professionals

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable gases, Category 1A H220  
 Gases under pressure : Liquefied gas H280  
 Carcinogenicity, Category 2 H351

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Full text of H- and EUH-statements: see section 16

## Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS08

Signal word (CLP)

: Danger

Contains

: Dichloromethane

Hazard statements (CLP)

: H220 - Extremely flammable gas.  
 H280 - Contains gas under pressure; may explode if heated.  
 H351 - Suspected of causing cancer.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
 P308+P313 - IF exposed or concerned: Get medical advice/attention.  
 P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
 P403 - Store in a well-ventilated place.  
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## 2.3. Other hazards

Other hazards which do not result in classification : The vapours are denser than air and may travel along the ground. Distance ignition possible. Contact with gas or liquefied gas could cause a combination of burns, severe injury and frostbite.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dichloromethane	CAS-No.: 75-09-2 EC-No.: 200-838-9 EC Index-No.: 602-004-00-3 REACH-no: 01-2119480404 41	20 – 30	Carc. 2, H351
Isobutane	CAS-No.: 75-28-5 EC-No.: 200-857-2 EC Index-No.: 601-004-00-0 REACH-no: 01-2119474691-27	5 – 10	Flam. Gas 1A, H220 Press. Gas (Liq.), H280

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Propane	CAS-No.: 74-98-6 EC-No.: 200-827-9 EC Index-No.: 601-003-00-5 REACH-no: 01-2119486944-21	5 – 10	Flam. Gas 1A, H220 Press. Gas (Liq.), H280

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If medical advice is needed, have product container or label at hand. In case of doubt or persistent symptoms, consult always a physician.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Seek medical attention if ill effect or irritation develops.

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

No additional information available

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: Extremely flammable gas.
Explosion hazard	: The vapours are denser than air and may travel along the ground. Distance ignition possible.
Reactivity in case of fire	: Pressurised container: May burst if heated. Combustion produces irritating gases.
Hazardous decomposition products in case of fire	: Thermal decomposition can lead to the release of irritating gases and vapours. carbon oxides. Hydrogen chloride. Chlorine. Phosgene.

### 5.3. Advice for firefighters

Firefighting instructions	: Eliminate all ignition sources if safe to do so. Do not breathe fumes from fires or vapours from decomposition. If possible, remove the products within undamaged containers from danger area. Cool down the containers exposed to heat with a water spray. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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## SECTION 6: Accidental release measures

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

General measures : Wear personal protective equipment. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment. No flames, no sparks. Eliminate all sources of ignition.

#### 6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Do not breathe vapours, mist, spray. Avoid contact with skin and eyes. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapours/spray.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Do not allow product to spread into the environment. If the product contaminates rivers and lakes or drains, inform respective authorities.

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

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Store away from other materials.

Other information : Provide adequate ventilation. Remove all sources of ignition. Do not eat, drink or smoke during use. Wear suitable protective clothing.

### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Do not spray on an open flame or other ignition source. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure good ventilation of the work station. Pressurized container. Protect from sunlight. Store in a well-ventilated place. Avoid breathing vapours. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety practice.

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

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Keep away from heat and direct sunlight. Store in original container. Store locked up.

Incompatible materials : Strong acids, strong bases and oxidation agents.

Storage temperature : Store at room temperature

Heat and ignition sources : Keep away from sources of ignition - No smoking.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

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<b>Dichloromethane (75-09-2)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Methylene chloride; Dichloromethane
IOEL TWA	353 mg/m <sup>3</sup>
IOEL TWA [ppm]	100 ppm
IOEL STEL	706 mg/m <sup>3</sup>
IOEL STEL [ppm]	200 ppm
Remark	skin
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
<b>EU - Biological Limit Value (BLV)</b>	
Local name	Methylene chloride
BLV	1 mg/l Parameter: methylene chloride - Medium: blood 4 % Parameter: COHb - Medium: Blood 0.3 mg/l Parameter: methylene chloride - Medium: urine
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Dichloromethane
WEL TWA (OEL TWA) [1]	350 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	1060 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	300 ppm
Remark	BMGV (Biological monitoring guidance values are listed in Table 2), Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>United Kingdom - Biological limit values</b>	
Local name	Dichlorometane
BMGV	30 ppm Parameter: carbon monoxide - Medium: end-tidal breath - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

## 8.1.2. Recommended monitoring procedures

No additional information available

## 8.1.3. Air contaminants formed

No additional information available

## 8.1.4. DNEL and PNEC

<b>Dichloromethane (75-09-2)</b>	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	12 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	176 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	0.06 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	44 mg/m <sup>3</sup>

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Dichloromethane (75-09-2)	
Long-term - systemic effects, dermal	5.82 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.31 mg/l
PNEC aqua (marine water)	0.031 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.27 mg/l
PNEC sediment (marine water)	0.027 mg/l
PNEC (Soil)	
PNEC soil	0.33 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	26 mg/l

## 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Provide adequate ventilation. No flames, no sparks. Eliminate all sources of ignition. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Safety glasses, Gloves. Protective clothing. Respiratory protection.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses with side shields. EN 166

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing. Normal overalls. EN 13034

##### Hand protection:

Wear suitable gloves tested to EN374. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves must be replaced after each use and whenever signs of wear or perforation appear. Gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemical resistant gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	(≥0.7 mm)	x	EN 374
Chemical resistant gloves	Butyl rubber	6 (> 480 minutes)	(≥0.4 mm)	x	EN 374

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

Wear respiratory protection. In case of inadequate ventilation wear respiratory protection. Gas mask with filter type. Filter AX (brown)

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## 8.2.2.4. Thermal hazards

No additional information available

## 8.2.3. Environmental exposure controls

### Environmental exposure controls:

Do not contaminate water with the product or its container. Do not clean application equipment near surface water.

### Other information:

If on skin, take off contaminated clothing. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Wash hands before breaks and after work. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Colour	: Clear. red.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -97 °C
Boiling point	: 40 °C
Flammability	: Extremely flammable gas.
Explosion limits	: Not available
Lower explosion limit	: 12 vol %
Upper explosion limit	: 19 vol %
Flash point	: -90 °C (Closed cup)
Auto-ignition temperature	: > 556.1
Decomposition temperature	: Not available
pH	: Not applicable
Viscosity, kinematic	: Not applicable
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 1.25
Vapour pressure	: 4.83 bar (21.1 °C)
Vapour pressure at 50 °C	: Not available
Density	: 1.3 g/ml (25 °C)
Relative density	: Not applicable
Relative vapour density at 20 °C	: 2.15
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Extremely flammable gas. Pressurised container: May burst if heated.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No hazardous reactions known under normal conditions of use.

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## 10.4. Conditions to avoid

High temperature. No flames, no sparks. Eliminate all sources of ignition. Do not spray the product on hot surface areas.

## 10.5. Incompatible materials

Strong acids, strong bases and strong oxidants.

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
 Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
 Acute toxicity (inhalation) : Not classified. (Based on available data, the classification criteria are not met)

#### Dichloromethane (75-09-2)

LD50 oral rat	> 2000 mg/kg (OECD 401)
LD50 dermal rat	> 2000 mg/kg (OECD 402)
LC50 Inhalation - Rat	4900 mg/l

#### Propane (74-98-6)

LC50 Inhalation - Rat [ppm]	2000 ppm
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Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
 Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
 Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)  
 Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)  
 Carcinogenicity : Suspected of causing cancer.  
 Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)  
 STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
 STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

#### Dichloromethane (75-09-2)

NOAEL (oral, rat, 90 days)	6 mg/kg bodyweight/day OECD Guideline 453
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Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

#### 11.2.2. Other information

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)  
 Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

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## Dichloromethane (75-09-2)

LC50 - Fish [1]	193 mg/l Pimephales promelas
EC50 - Crustacea [1]	27 – 109 mg/l

## 12.2. Persistence and degradability

### Hranifix smart 17/47,5 kg

Persistence and degradability	Not established.
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### Isobutane (75-28-5)

Persistence and degradability	Readily biodegradable.
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### Propane (74-98-6)

Persistence and degradability	Readily biodegradable.
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## 12.3. Bioaccumulative potential

### Hranifix smart 17/47,5 kg

Partition coefficient n-octanol/water (Log Pow)	1.25
Bioaccumulative potential	Not established.

### Dichloromethane (75-09-2)

Partition coefficient n-octanol/water (Log Pow)	1.25 @ 20 °C
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### Isobutane (75-28-5)

Partition coefficient n-octanol/water (Log Pow)	2.76
Bioaccumulative potential	Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

### Propane (74-98-6)

Partition coefficient n-octanol/water (Log Pow)	2.36
Bioaccumulative potential	Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

## 12.4. Mobility in soil

### Propane (74-98-6)

Ecology – soil	Unlikely
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### Isobutane (75-28-5)

Ecology – soil	Unlikely
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## 12.5. Results of PBT and vPvB assessment

### Hranifix smart 17/47,5 kg

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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## 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## 12.7. Other adverse effects

Other adverse effects : Not known  
Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Additional information : Container under pressure. Do not drill or burn even after use.  
Ecology - waste materials : Avoid release to the environment.  
European List of Waste (LoW) code : 14 06 03\* - other solvents and solvent mixtures  
15 01 04 - metallic packaging

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 3501	UN 3501	UN 3501	UN 3501	UN 3501
<b>14.2. UN proper shipping name</b>				
CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.	CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S.			
<b>Transport document description (ADR)</b>				
UN 3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (isobutane, propane), 2.1, (B/D)	UN 3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (isobutane, propane), 2.1	UN 3501 Chemical under pressure, flammable, n.o.s. (Isobutane, propane), 2.1	UN 3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (Isobutane, propane), 2.1	UN 3501 CHEMICAL UNDER PRESSURE, FLAMMABLE, N.O.S. (Isobutane, propane), 2.1
<b>14.3. Transport hazard class(es)</b>				
2.1	2.1	2.1	2.1	2.1
				
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No

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ADR	IMDG	IATA	ADN	RID
No supplementary information available				

## 14.6. Special precautions for user

### Overland transport

Classification code (ADR)	: 8F
Special provisions (ADR)	: 274, 659
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P206
Special packing provisions (ADR)	: PP89
Mixed packing provisions (ADR)	: MP9
Portable tank and bulk container instructions (ADR)	: T50
Portable tank and bulk container special provisions (ADR)	: TP4, TP40
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: --
Special provisions for carriage - Bulk (ADR)	: --
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV10, CV12, CV36
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 23
Orange plates	:  
Tunnel restriction code (ADR)	: B/D
EAC code	: 2YE

### Transport by sea

Special provisions (IMDG)	: 274, 362
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P206
Special packing provisions (IMDG)	: PP89
Tank instructions (IMDG)	: T50
Tank special provisions (IMDG)	: TP4, TP40
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: D
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Liquids, pastes or powders, pressurized with a propellant which meets the definition of a gas.

### Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 218
CAO max net quantity (IATA)	: 75kg
Special provisions (IATA)	: A1, A187
ERG code (IATA)	: 10L

### Inland waterway transport

Classification code (ADN)	: 8F
Special provisions (ADN)	: 274, 659
Limited quantities (ADN)	: 0

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Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

## Rail transport

Classification code (RID)	: 8F
Special provisions (RID)	: 274, 659
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P206
Special packing provisions (RID)	: PP89
Mixed packing provisions (RID)	: MP9
Portable tank and bulk container instructions (RID)	: T50
Portable tank and bulk container special provisions (RID)	: TP4, TP40
Transport category (RID)	: 2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW10, CW12, CW36
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP)

#### EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(b)	Dichloromethane
40.	Isobutane ; Propane
59.	Dichloromethane

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

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## 15.1.2. National regulations

### United Kingdom

British National Regulations

: Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives, in the valid wording.  
Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste, in the valid wording.  
UK Waste Regulations.  
UK REACH.  
GB CLP.

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Indication of changes

Section	Changed item	Change	Comments
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard pictograms (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
2.3	Other hazards not contributing to the classification	Modified	
4.1	First-aid measures after inhalation	Modified	
4.1	First-aid measures after ingestion	Modified	
4.1	First-aid measures after eye contact	Modified	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures general	Modified	
4.3	Other medical advice or treatment	Modified	
5.1	Unsuitable extinguishing media	Modified	
5.2	Hazardous decomposition products in case of fire	Modified	
5.2	Reactivity in case of fire	Modified	
5.3	EAC code	Added	
5.3	Firefighting instructions	Modified	
6.1	Emergency procedures	Added	
6.1	Protective equipment	Modified	
6.1	Emergency procedures	Modified	
6.1	General measures	Added	
6.3	Other information	Modified	
6.3	Methods for cleaning up	Modified	
7.1	Precautions for safe handling	Modified	
7.2	Incompatible materials	Modified	
7.2	Storage conditions	Modified	

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## Indication of changes

Section	Changed item	Change	Comments
8.2	Respiratory protection	Modified	
8.2	Hand protection	Modified	
8.2	Eye protection	Modified	
8.2	Skin and body protection	Modified	
8.2	Other information	Modified	
8.2	Personal protective equipment	Modified	
8.2	Appropriate engineering controls	Modified	
10.1	Reactivity	Modified	
10.5	Incompatible materials	Modified	
12.2	Persistence and degradability	Modified	
12.3	Bioaccumulative potential	Modified	
13.1	Additional information	Modified	
14.6	Hazard identification number (Kemler No.)	Added	
15.1	REACH Annex XVII	Modified	
15.1	British National Regulations	Added	
16	Training advice	Modified	
16	Data sources	Modified	

## Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA Guidance on the compilation of safety data sheets  
ECHA C&L Inventory database.  
Supplier's safety documents.

Training advice : Provide SDS to employees. Follow general rules on handling chemical substances and/or mixtures. Safety training for chemicals handling.

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**Full text of H- and EUH-statements:**

Carc. 2	Carcinogenicity, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H351	Suspected of causing cancer.
Press. Gas (Comp.)	Gases under pressure : Compressed gas
Press. Gas (Liq.)	Gases under pressure : Liquefied gas

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

Flam. Gas 1A	H220	Calculation method
Press. Gas (Liq.)	H280	Expert judgment
Carc. 2	H351	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.