

# Hraniclean 11

Issue date: 3/24/2018

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Revision date: 5/31/2024

Supersedes version of: 6/18/2023

Version: 2.1

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

### 1.1. Product identifier

Product form : Mixture  
Product name : Hraniclean 11  
UFI : 7KT2-20J9-R006-J4WX

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

#### Relevant identified uses

Industrial/Professional use spec : For professional use only  
Use of the substance/mixture : The cleaner of panels and edges in the furniture industry.

### 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 +420 565 501 211

[cz-hranipex@hranipex.com](mailto:cz-hranipex@hranipex.com), [www.hranipex.cz](http://www.hranipex.cz)

E-mail address of competent person responsible for the SDS :

[sds@regartis.com](mailto:sds@regartis.com)

#### Supplier

Hranipex Ltd.  
Unit 2 Radial Park, Birmingham Business Park  
Birmingham, B37 7YN  
United Kingdom

T +44 121 767 9180, F 0121 782 6250

[uk-hranipex@hranipex.com](mailto:uk-hranipex@hranipex.com), [www.hranipex.co.uk](http://www.hranipex.co.uk)

### 1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	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	+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	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	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 liquids, Category 2 H225  
Specific target organ toxicity – Single exposure, Category 3, H336  
Narcosis  
Aspiration hazard, Category 1 H304  
Hazardous to the aquatic environment – Chronic Hazard, H411  
Category 2

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

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :    

Signal word (CLP) : Danger

Contains : Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.  
H304 - May be fatal if swallowed and enters airways.  
H336 - May cause drowsiness or dizziness.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P301+P310 - IF SWALLOWED: Immediately call a doctor.  
P331 - Do NOT induce vomiting.  
P370+P378 - In case of fire: Use extinguishing powder, sand, carbon dioxide (CO2) to extinguish.  
P391 - Collect spillage.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

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 substance(s) are 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

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	EC-No.: 920-750-0 REACH-no: 01-2119473851-33	60 – 70	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066
Ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610-43	30 – 40	Flam. Liq. 2, H225

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
cyclohexane	CAS-No.: 110-82-7 EC-No.: 203-806-2 EC Index-No.: 601-017-00-1	< 5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
butanone; ethyl methyl ketone	CAS-No.: 78-93-3 EC-No.: 201-159-0 EC Index-No.: 606-002-00-3 REACH-no: 01-2119457290-43	< 1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
propan-2-ol; isopropyl alcohol; isopropanol	CAS-No.: 67-63-0 EC-No.: 200-661-7 EC Index-No.: 603-117-00-0 REACH-no: 01-2119457558-25	< 1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Ascorbic acid	CAS-No.: 50-81-7 EC-No.: 200-066-2	< 1	Eye Irrit. 2, H319

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	: First aider: Pay attention to self-protection!. Immediately remove contaminated or damp clothing. Move the affected person away from the contaminated area. In case of loss of consciousness, place the victim in the recovery position. Never give anything by mouth to an unconscious person. If vomiting occurs have person lean forward. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately. Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Cardiac arrest: perform resuscitation.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest. Call a doctor.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. After contact with skin, wash immediately and thoroughly with water and soap. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid measures after ingestion	: Rinse mouth out with water. Give 500 ml water to drink. Do not induce vomiting. Risk of pneumonia. Call a physician immediately.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: Cough. Headache.
Symptoms/effects after ingestion	: Ingestion may cause nausea and vomiting. Risk of lung oedema.

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

Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- |                                |   |
|--------------------------------|---|
| Suitable extinguishing media   | : Dry powder. Alcohol resistant foam. Carbon dioxide. Water spray or fog. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.  |

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

- |  |   |
|--|---|
| Fire hazard                                      | : Highly flammable liquid and vapour.   |
| Explosion hazard                                 | : Vapours are heavier than air and may spread along floors. May form flammable/explosive vapour-air mixture.  |
| Hazardous decomposition products in case of fire | : On burning: release of carbon monoxide - carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health. Do not breathe fumes from fires or vapours from decomposition. |

### 5.3. Advice for firefighters

- |                                |  |
|--------------------------------|--|
| Precautionary measures fire    | : Evacuate area. Exercise caution when fighting any chemical fire. Do not breathe fumes.   |
| Firefighting instructions      | : Move containers from fire area if it can be done without personal risk. Cool containers / tanks with spray water if possible.          |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
| Other information              | : Prevent fire fighting water from entering the environment.   |

## SECTION 6: Accidental release measures

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

- |                  |  |
|------------------|--|
| General measures | : Provide adequate ventilation. Remove ignition sources. |
|------------------|--|

#### For non-emergency personnel

- |                      |   |
|----------------------|---|
| Protective equipment | : Wear suitable protective clothing.  |
| Emergency procedures | : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Stop leaks if it can be done without personal risk. |

#### For emergency responders

- |                      |   |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

### 6.2. Environmental precautions

Do not allow the mixture to enter into sewer, water system (underground water, surface water) or soil. In case of contamination of soil or water bodies notify the competent authorities.

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

- |                         |  |
|-------------------------|--|
| Methods for cleaning up | : Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Use spark-proof mechanical equipment to collect the leaked product and place it in containers for recovery or disposal. Notify authorities if product enters sewers or public waters. |
| Other information       | : Dispose of contaminated material at an authorized site.  |

### 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 | : Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid inhalation of vapours. Use only outdoors or in a well-ventilated area. Keep container closed when not in use. Wear personal protective equipment. |
|-------------------------------|--|

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ensure adequate ventilation. Ground/bond container and receiving equipment. Keep in properly labelled containers.

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Store away from direct sunlight or other heat sources.

Incompatible products : Strong acids, strong bases and strong oxidants.

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Information on mixed storage : Storage class: 3

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Ethanol (64-17-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA)	1920 mg/m³
	1000 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
cyclohexane (110-82-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Cyclohexane
IOEL TWA	700 mg/m³
	200 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	Cyclohexane
WEL TWA (OEL TWA)	350 mg/m³
	100 ppm
WEL STEL (OEL STEL)	1050 mg/m³
	300 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
butanone; ethyl methyl ketone (78-93-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Butanone
IOEL TWA	600 mg/m³
	200 ppm
IOEL STEL	900 mg/m³

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## butanone; ethyl methyl ketone (78-93-3)

	300 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Butan-2-one (methyl ethyl ketone)
WEL TWA (OEL TWA)	600 mg/m <sup>3</sup>
	200 ppm
WEL STEL (OEL STEL)	899 mg/m <sup>3</sup>
	300 ppm
Remark	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

## United Kingdom - Biological limit values

Local name	Butan-2-one (methyl ethyl ketone)
BMGV	70 µmol/l Parameter: butan-2-one - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

## propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

### United Kingdom - Occupational Exposure Limits

Local name	Propan-2-ol
WEL TWA (OEL TWA)	999 mg/m <sup>3</sup>
	400 ppm
WEL STEL (OEL STEL)	1250 mg/m <sup>3</sup>
	500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

### DNEL and PNEC

## Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	773 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2035 mg/m <sup>3</sup>

### DNEL/DMEL (General population)

Long-term - systemic effects, oral	699 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	608 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	699 mg/kg bodyweight/day

## Ethanol (64-17-5)

### DNEL/DMEL (Workers)

Acute - local effects, inhalation	1900 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	950 mg/m <sup>3</sup>

### DNEL/DMEL (General population)

Acute - local effects, inhalation	950 mg/m <sup>3</sup>
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## Ethanol (64-17-5)

Long-term - systemic effects, oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day

## PNEC (Water)

PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l

## PNEC (Sediment)

PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt

## PNEC (Soil)

PNEC soil	0.63 mg/kg dwt
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## butanone; ethyl methyl ketone (78-93-3)

### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	1161 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	600 mg/m <sup>3</sup>

### DNEL/DMEL (General population)

Long-term - systemic effects, oral	31 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	106 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	412 mg/kg bodyweight/day

## PNEC (Water)

PNEC aqua (freshwater)	55.8 mg/l
PNEC aqua (marine water)	55.8 mg/l

## PNEC (Sediment)

PNEC sediment (freshwater)	284.7 mg/kg dwt
PNEC sediment (marine water)	284.7 mg/kg dwt

## PNEC (Soil)

PNEC soil	22.5 mg/kg dwt
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## PNEC (STP)

PNEC sewage treatment plant	709 mg/l
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## propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	888 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	500 mg/m <sup>3</sup>

### DNEL/DMEL (General population)

Long-term - systemic effects, oral	26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	89 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	319 mg/kg bodyweight/day

## PNEC (Water)

PNEC aqua (freshwater)	140.9 mg/l
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propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)	
PNEC aqua (marine water)	140.9 mg/l
PNEC aqua (intermittent, freshwater)	140.9 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	552 mg/kg dwt
PNEC sediment (marine water)	552 mg/kg dwt
PNEC (Soil)	
PNEC soil	28 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	160 kg/kg food
PNEC (STP)	
PNEC sewage treatment plant	2251 mg/l

8.2. Exposure controls

- Appropriate engineering controls
- Appropriate engineering controls:  
Provide local exhaust or general room ventilation. Apply technical measures to comply with the occupational exposure limits.
- Personal protection equipment
- Personal protective equipment:  
Avoid all unnecessary exposure. Wear recommended personal protective equipment.
- Eye and face protection
- Eye protection:  
Not required for normal conditions of use. Use splash goggles when eye contact due to splashing is possible
- Skin protection
- Skin and body protection:  
Wear suitable protective clothing
- Hand protection:
- Wear suitable gloves tested to EN374
- Respiratory protection
- Respiratory protection:  
A mask with a filter against organic vapors in a poorly ventilated environment.
- Environmental exposure controls
- Environmental exposure controls:  
Avoid release to the environment.
- Other information:
- Do not eat, drink or smoke in areas where product is used. Always wash hands after handling the product. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Solvent odour.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available



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Flammability	: Not applicable
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 8 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: substance/mixture is non-polar/aprotic
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 0.75 g/cm <sup>3</sup> @ 20 °C (± 1.5%)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

**9.2. Other information****Other safety characteristics**

VOC content	: 0.99 kg/kg
Total organic carbon (TOC)	: 0,7 kg/kg

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Highly flammable liquid and vapour.

**10.2. Chemical stability**

The product is stable at normal handling and storage conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

**10.4. Conditions to avoid**

Direct sunlight. High temperature. No flames, no sparks. Eliminate all sources of ignition.

**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)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	
LD50 oral rat	> 5820 mg/kg OECD 401
LD50 dermal rabbit	> 2920 mg/kg OECD 402
LC50 Inhalation - Rat (Vapours)	> 23.3 mg/l/4h OECD 403

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## Ethanol (64-17-5)

LD50 oral rat	14740 mg/kg
LD50 dermal rabbit	> 15800 mg/kg
LC50 Inhalation - Rat (Vapours)	124.7 mg/l/4h

## butanone; ethyl methyl ketone (78-93-3)

LD50 oral rat	3300 mg/kg
LD50 dermal rabbit	5000 mg/kg
LC50 Inhalation - Rat	34.5 mg/l
LC50 Inhalation - Rat (Dust/Mist)	40 mg/l/4h

## propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat [ppm]	> 10000 ppm OECD 403

## Ascorbic acid (50-81-7)

LD50 oral rat	11900 mg/kg (Rattus norvegicus)
LD50 oral	3367 mg/kg mouse

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	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: May cause drowsiness or dizziness.

## Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

STOT-single exposure	May cause drowsiness or dizziness.
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## cyclohexane (110-82-7)

STOT-single exposure	May cause drowsiness or dizziness.
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## butanone; ethyl methyl ketone (78-93-3)

STOT-single exposure	May cause drowsiness or dizziness.
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## propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

STOT-single exposure	May cause drowsiness or dizziness.
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STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: May be fatal if swallowed and enters airways.

## 11.2. Information on other hazards

### 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 substance(s) are 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 %
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**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) : Toxic to aquatic life with long lasting effects.

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

LC50 - Fish [1]	> 13.4 mg/l
EC50 - Crustacea [1]	3 mg/l
EC50 72h - Algae [1]	10 – 30 mg/l
LOEC (chronic)	0.32 mg/l
NOEC (acute)	0.1 – 1 mg/l
NOEC (chronic)	0.17 mg/l
NOEC chronic algae	10 mg/l

**Ethanol (64-17-5)**

LC50 - Fish [1]	14.2 g/l
EC50 - Crustacea [1]	5012 mg/l
EC50 72h - Algae [1]	275 mg/l

**butanone; ethyl methyl ketone (78-93-3)**

LC50 - Fish [1]	> 3000 mg/l
EC50 - Crustacea [1]	1382 mg/l

**12.2. Persistence and degradability****Hraniclean 11**

Persistence and degradability	No data available.
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**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

Persistence and degradability	Rapidly degradable
Biodegradation	98 % 28d

**12.3. Bioaccumulative potential****Hraniclean 11**

Bioaccumulative potential	No data available.
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**Ethanol (64-17-5)**

Partition coefficient n-octanol/water (Log Pow)	-0.35
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**12.4. Mobility in soil****Hraniclean 11**

Ecology - soil	No data available.
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12.5. Results of PBT and vPvB assessment

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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

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 substance(s) are 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 %.
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12.7. Other adverse effects

Additional information	: Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Do not dispose of waste into sewer. Do not allow into drains or water courses.
Product/Packaging disposal recommendations	: Empty containers can be used in energy incinerator or stored in a landfill in accordance with the relevant legislation.
Additional information	: Flammable vapours may accumulate in the container.
Ecological waste information	: Avoid release to the environment.
HP Code	: HP3 - "Flammable:" – flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C; – flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air; – flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction; – flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa; – water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities; – other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste. HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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






ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1993	UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper shipping name				
FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.	Flammable liquid, n.o.s.	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.

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ADR	IMDG	IATA	ADN	RID
<b>Transport document description</b>				
UN 1993 FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1993 FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol), 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1993 Flammable liquid, n.o.s. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1993 FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1993 FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol), 3, II, ENVIRONMENTALLY HAZARDOUS
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes EmS-No. (Fire): F-E EmS-No. (Spillage): S-E	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

## 14.6. Special precautions for user

## Overland transport

Classification code (ADR)	: F1
Special provisions (ADR)	: 274, 601, 640D
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP1, TP8, TP28
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2, S20
Hazard identification number (Kemler No.)	: 33
Orange plates	: 

Tunnel restriction code (ADR)	: D/E
EAC code	: •3YE

## Transport by sea

Special provisions (IMDG)	: 274
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T7

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Tank special provisions (IMDG) : TP1, TP28, TP8  
Stowage category (IMDG) : B

Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y341  
PCA limited quantity max net quantity (IATA) : 1L  
PCA packing instructions (IATA) : 353  
PCA max net quantity (IATA) : 5L  
CAO packing instructions (IATA) : 364  
CAO max net quantity (IATA) : 60L  
Special provisions (IATA) : A3  
ERG code (IATA) : 3H

Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 274, 601, 640D  
Limited quantities (ADN) : 1 L  
Excepted quantities (ADN) : E2  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 1

Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 274, 601, 640D  
Limited quantities (RID) : 1L  
Excepted quantities (RID) : E2  
Packing instructions (RID) : P001, IBC02, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T7  
Portable tank and bulk container special provisions (RID) : TP1, TP8, TP28  
Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 2  
Colis express (express parcels) (RID) : CE7  
Hazard identification number (RID) : 33

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	Hraniclean 11 ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol ; cyclohexane ; butanone; ethyl methyl ketone ; propan-2-ol; isopropyl alcohol; isopropanol
3(b)	Hraniclean 11 ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; cyclohexane ; butanone; ethyl methyl ketone ; propan-2-ol; isopropyl alcohol; isopropanol
3(c)	Hraniclean 11 ; Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; cyclohexane
40.	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ; Ethanol ; cyclohexane ; butanone; ethyl methyl ketone ; propan-2-ol; isopropyl alcohol; isopropanol

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EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
57.	cyclohexane

**REACH Annex XIV (Authorisation List)**  
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

**REACH Candidate List (SVHC)**  
Contains no substance(s) listed on the REACH Candidate List

**PIC Regulation (Prior Informed Consent)**  
Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

**POP Regulation (Persistent Organic Pollutants)**  
Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

**Ozone Regulation (1005/2009)**  
Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

**Dual-Use Regulation (428/2009)**  
Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

**VOC Directive (2004/42)**  
VOC content : 0.99 kg/kg

**Explosives Precursors Regulation (2019/1148)**  
Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

**Drug Precursors Regulation (273/2004)**  
Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Methylethylketone	Butanone	78-93-3	2914 12 00	Category 3		Annex I

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 additional information available

SECTION 16: Other information

Indication of changes		
Section	Changed item	Comments
	Supersedes	Modified
	Revision date	Modified
8.2	Respiratory protection	Modified

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## Indication of changes

Section	Changed item	Comments
9.1	pH	Added
9.1	Density	Added
9.1	Flash point	Modified
9.2	Other properties	Added
9.2	VOC content	Added
12.1	Ecology - general	Removed
12.2	Persistence and degradability	Modified
15.1	VOC content	Added

## 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
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
SDS	Safety Data Sheet
ATE	Acute Toxicity Estimate
LC50	Median lethal concentration
LD50	Median lethal dose
EC50	Median effective concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative
	Volatile organic compounds (VOC) :

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. Normal use of this product shall imply use in accordance with the instructions on the packaging.

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

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.



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Full text of H- and EUH-statements:	
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 2	H225	Expert judgement
STOT SE 3	H336	Calculation method
Asp. Tox. 1	H304	Expert judgement
Aquatic Chronic 2	H411	Calculation method

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.