

Hraniclean 101

Issue date: 6/1/2015

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Revision date: 9/1/2024
Supersedes version of: 9/7/2023

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 101

UFI

: 2WS2-1014-9007-8E8E

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

: Separating liquid 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, www.hranipex.cz
E-mail address of competent person responsible for the SDS :
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, 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

Serious eye damage/eye irritation, Category 2

H319

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

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Adverse physicochemical, human health and environmental effects

Causes eye irritation. Extremely flammable liquid and vapour.

2.2. Label elements

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

Hazard pictograms (CLP):



GHS02

GHS07

Signal word (CLP): Danger

Hazard statements (CLP):

H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

Precautionary statements (CLP):

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P280 - Wear Safety glasses.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P370+P378 - In case of fire: Use dry extinguishing powder, sand, carbon dioxide (CO2) to extinguish.

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

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] |
|--|---|----------|---|
| Ethanol | CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610-43 | 90 – 100 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 |
| Hydrocarbons, C10-C13, n-alkanes, isocyanates, cyclic, <2% aromatics | EC-No.: 918-481-9 REACH-no: 01-2119457273-39 | < 10 | Asp. Tox. 1, H304 EUH066 |
| acetone; propan-2-one; propanone | CAS-No.: 67-64-1 EC-No.: 200-662-2 EC Index-No.: 606-001-00-8 REACH-no: 01-2119471330-49 | < 3 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 |
| 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 |

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| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|-----|---|
| 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 |

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 | : Take care of your own safety. If you experience any health problems or if you are in doubt, inform your doctor and provide him / her with information from this Safety Data Sheet. Life-threatening conditions require resuscitation. In case of unconsciousness place the affected person in a stabilized position on the side, with a slightly bowed head, and take care of the passage of the airways. Heart arrest - Immediately perform an indirect heart massage. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. |
| First-aid measures after skin contact | : Remove immediately contaminated clothing, wash affected skin area with plenty of cold or lukewarm water. If no injury to skin occurred, it is recommended to use soap, soap solution or shampoo. Call a physician!. Repeated exposure may cause skin dryness or cracking. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth. Drink 0,5l of water. Do NOT induce vomiting. Obtain emergency medical attention. |

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

| | |
|------------------------------------|--|
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause nausea and vomiting. |

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 | : Alcohol resistant foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| 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 | : May form flammable/explosive vapour-air mixture. |
| Hazardous decomposition products in case of fire | : Carbon monoxide. Carbon dioxide. Do not breathe fumes from fires or vapours from decomposition. |

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Precautionary measures fire | : Do not breathe vapour/aerosol. Evacuate area. |
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment. |

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Ensure adequate ventilation. Evacuate area.

For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Do not breathe vapours. Avoid contact with skin, eyes and clothing.

For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing Vapours. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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. Collect all waste in suitable and labelled containers and dispose according to local legislation. After cleaning, flush traces away with water. Do not use solvents.

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

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Ensure adequate air ventilation.

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only non-sparking tools. Avoid breathing vapours. Ground/bond container and receiving equipment. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep in fireproof place. Keep container tightly closed.

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

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

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| | |
|--|---|
| 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 |
| acetone; propan-2-one; propanone (67-64-1) | |
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| Local name | Acetone |
| IOEL TWA | 1210 mg/m³ |
| | 500 ppm |
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Acetone |
| WEL TWA (OEL TWA) | 1210 mg/m³ |
| | 500 ppm |
| WEL STEL (OEL STEL) | 3620 mg/m³ |
| | 1500 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 |
| | 300 ppm |
| Regulatory reference | COMMISSION DIRECTIVE 2000/39/EC |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Butan-2-one (methyl ethyl ketone) |
| WEL TWA (OEL TWA) | 600 mg/m³ |
| | 200 ppm |
| WEL STEL (OEL STEL) | 899 mg/m³ |
| | 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 |

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| | |
|---|---------------------------------------|
| 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/m³ |
| | 400 ppm |
| WEL STEL (OEL STEL) | 1250 mg/m³ |
| | 500 ppm |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

DNEL and PNEC

| | |
|--|--------------------------|
| Ethanol (64-17-5) | |
| DNEL/DMEL (Workers) | |
| Acute - local effects, inhalation | 1900 mg/m³ |
| Long-term - systemic effects, dermal | 343 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 950 mg/m³ |
| DNEL/DMEL (General population) | |
| Acute - local effects, inhalation | 950 mg/m³ |
| Long-term - systemic effects,oral | 87 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 114 mg/m³ |
| 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 aqua (intermittent, freshwater) | 2.75 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 |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | 720 mg/kg food |
| PNEC (STP) | |
| PNEC sewage treatment plant | 580 mg/l |
| acetone; propan-2-one; propanone (67-64-1) | |
| DNEL/DMEL (Workers) | |
| Acute - local effects, inhalation | 2420 mg/m³ |
| Long-term - systemic effects, dermal | 186 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 1210 mg/m³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects,oral | 62 mg/kg bodyweight/day |

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acetone; propan-2-one; propanone (67-64-1)

| | |
|--|-------------------------|
| Long-term - systemic effects, inhalation | 200 mg/m ³ |
| Long-term - systemic effects, dermal | 62 mg/kg bodyweight/day |

PNEC (Water)

| | |
|--------------------------------------|-----------|
| PNEC aqua (freshwater) | 10.6 mg/l |
| PNEC aqua (marine water) | 1.06 mg/l |
| PNEC aqua (intermittent, freshwater) | 21 mg/l |

PNEC (Sediment)

| | |
|------------------------------|----------------|
| PNEC sediment (freshwater) | 30.4 mg/kg dwt |
| PNEC sediment (marine water) | 3.04 mg/kg dwt |

PNEC (Soil)

| | |
|-----------|-----------------|
| PNEC soil | 0.112 mg/kg dwt |
|-----------|-----------------|

PNEC (STP)

| | |
|-----------------------------|-----------|
| PNEC sewage treatment plant | 29.5 mg/l |
|-----------------------------|-----------|

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 ³ |

DNEL/DMEL (General population)

| | |
|--|--------------------------|
| Long-term - systemic effects, oral | 31 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 106 mg/m ³ |
| 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 |
|-----------|----------------|

PNEC (STP)

| | |
|-----------------------------|----------|
| PNEC sewage treatment plant | 709 mg/l |
|-----------------------------|----------|

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 ³ |

DNEL/DMEL (General population)

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

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| | |
|---|----------------|
| propan-2-ol; isopropyl alcohol; isopropanol (67-63-0) | |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 140.9 mg/l |
| 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:
Do not breathe vapour. Keep away from open flames, hot surfaces and sources of ignition. Provide local exhaust or general room ventilation.

Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure.

Eye and face protection

Eye protection:
Safety glasses. EN166

Skin protection

Skin and body protection:
Chemical resistant apron. Chemical resistant safety shoes. Long sleeved protective clothing

Hand protection:
Chemical resistant gloves (according to European standard ISO 374-1 or equivalent). Follow the glove manufacturer's specific recommendations when selecting the appropriate thickness, material, and permeability.

Other skin protection

Materials for protective clothing:
Wear suitable protective clothing. Wear protective clothing

Respiratory protection

Respiratory protection:
Half mask with filter against organic vapors. Self-contained breathing apparatus if exposure limits are exceeded or in poorly ventilated areas.

Environmental exposure controls

Other information:
Do not eat, drink or smoke during use. Always wash hands after handling the product. Immediately remove contaminated clothing or footwear.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|----------------|---------------|
| Physical state | : Liquid |
| Colour | : Colourless. |

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| | |
|---|--|
| Odour | : Alcoholic. |
| Odour threshold | : Not available |
| Melting point | : Not available |
| Freezing point | : Not available |
| Boiling point | : Not available |
| Flammability | : Not applicable |
| Lower explosion limit | : Not available |
| Upper explosion limit | : Not available |
| Flash point | : 14 °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 | : 0.79 g/cm ³ @ 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) | : 0,54 kg/kg |

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour. May form flammable and explosive vapour-air mixture.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids, strong bases and oxidation agents.

10.6. Hazardous decomposition products

No hazardous decomposition products known at room temperature.

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) |

Ethanol (64-17-5)

| | |
|---------------|-------------|
| LD50 oral rat | 14740 mg/kg |
|---------------|-------------|

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Ethanol (64-17-5)

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

acetone; propan-2-one; propanone (67-64-1)

| | |
|-----------------------------------|-------------------------------------|
| LD50 oral rat | 5800 mg/kg (Rattus norvegicus) |
| LD50 oral | 3000 mg/kg mouse |
| LD50 dermal rabbit | 20000 mg/kg |
| LC50 Inhalation - Rat (Dust/Mist) | 50100 mg/l/4h |
| LC50 Inhalation - Rat (Vapours) | 76 mg/l/4h (Rattus norvegicus), 24h |

Hydrocarbons, C10-C13, n-alkanes, isocyanates, cyclic, <2% aromatics

| | |
|-----------------------|--------------------------|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 5000 mg/kg |
| LC50 Inhalation - Rat | > 5000 mg/m ³ |

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 |

| | |
|-----------------------------------|---|
| Skin corrosion/irritation | : Not classified (Based on available data, the classification criteria are not met) |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| 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 | : Not classified (Based on available data, the classification criteria are not met) |

acetone; propan-2-one; propanone (67-64-1)

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

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

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

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

| | |
|----------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |
|----------------------|------------------------------------|

| | |
|------------------------|---|
| STOT-repeated exposure | : Not classified (Based on available data, the classification criteria are not met) |
| Aspiration hazard | : Not classified (Based on available data, the classification criteria are not met) |

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) : Not classified (Based on available data, the classification criteria are not met)

Ethanol (64-17-5)

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

acetone; propan-2-one; propanone (67-64-1)

| | |
|------------------------------------|---|
| LC50 - Fish [1] | 5540 mg/l (Salmo gairdneri) |
| LC50 - Fish [2] | 8300 mg/l (Lepomis macrochirus) |
| LC50 - Other aquatic organisms [1] | 8120 mg/l (Pimephales promelas) |
| LC50 - Other aquatic organisms [2] | 7032 mg/l (Poecilia reticulata) |
| EC50 - Crustacea [1] | 12600 – 12700 mg/l (Daphnia magna) |
| NOEC chronic algae | 4740 mg/l (Pseudokirchneriella subcapitata) |

Hydrocarbons, C10-C13, n-alkanes, isocyanates, cyclic, <2% aromatics

| | |
|----------------------|---|
| LC50 - Fish [1] | 1000 mg/l (Oncorhynchus mykiss) |
| EC50 - Crustacea [1] | 1000 mg/l (Daphnia magna) |
| EC50 72h - Algae [1] | 1000 mg/l (Pseudokirchneriella subcapitata) |

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

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

12.2. Persistence and degradability

acetone; propan-2-one; propanone (67-64-1)

| | |
|-------------------------------|--------------------|
| Persistence and degradability | Rapidly degradable |
| Biodegradation | 91 % 28d |

Hydrocarbons, C10-C13, n-alkanes, isocyanates, cyclic, <2% aromatics

| | |
|-------------------------------|--------------------|
| Persistence and degradability | Rapidly degradable |
| Biodegradation | 80 % 28d |

12.3. Bioaccumulative potential

Ethanol (64-17-5)

| | |
|---|-------|
| Partition coefficient n-octanol/water (Log Pow) | -0.35 |
|---|-------|

acetone; propan-2-one; propanone (67-64-1)

| | |
|---|-------|
| Bioconcentration factor (BCF REACH) | 1 |
| Partition coefficient n-octanol/water (Log Pow) | -0.24 |

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No additional information available

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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

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 %.

Other adverse effects

: Not stated.

Additional information

: Avoid release to the environment.

13.1. Waste treatment methods

Regional waste regulation

: Disposal must be done according to official regulations.

Waste treatment methods

: Collect all waste in suitable and labelled containers and dispose according to local legislation.

Sewage disposal recommendations

: Do not dispose of waste into sewer.

Product/Packaging disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Empty containers can be used in energy incinerator or stored in a landfill in accordance with the relevant legislation.

Additional information

: Handle empty containers with care because residual vapours are flammable.

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.






HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

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


| ADR | IMDG | IATA | ADN | RID |
|-------------------------------------|---------|---------|---------|---------|
| 14.1. UN number or ID number | | | | |
| UN 1170 | UN 1170 | UN 1170 | UN 1170 | UN 1170 |

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| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| 14.2. UN proper shipping name | | | | |
| ETHANOL (ETHYL ALCOHOL) / ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | ETHANOL (ETHYL ALCOHOL) | Ethanol | ETHANOL (ETHYL ALCOHOL) | ETHANOL (ETHYL ALCOHOL) |
| Transport document description | | | | |
| UN 1170 ETHANOL (ETHYL ALCOHOL) / ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E) | UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II | UN 1170 Ethanol, 3, II | UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II | UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II |
| 14.3. Transport hazard class(es) | | | | |
| 3 | 3 | 3 | 3 | 3 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| II | II | II | II | II |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-E EmS-No. (Spillage): S-D | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | | |

14.6. Special precautions for user

| | |
|---|---|
| Overland transport | |
| Classification code (ADR) | : F1 |
| Special provisions (ADR) | : 144, 601 |
| 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) | : T4 |
| Portable tank and bulk container special provisions (ADR) | : TP1 |
| 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 | : •2YE |

| | |
|---------------------------|-------|
| Transport by sea | |
| Special provisions (IMDG) | : 144 |
| Limited quantities (IMDG) | : 1 L |

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| | |
|------------------------------------|--|
| Excepted quantities (IMDG) | : E2 |
| Packing instructions (IMDG) | : P001 |
| IBC packing instructions (IMDG) | : IBC02 |
| Tank instructions (IMDG) | : T4 |
| Tank special provisions (IMDG) | : TP1 |
| Stowage category (IMDG) | : A |
| Properties and observations (IMDG) | : Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19%. Miscible with water. |

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, A58, A180 |
| ERG code (IATA) | : 3L |

Inland waterway transport

| | |
|-----------------------------------|-------------|
| Classification code (ADN) | : F1 |
| Special provisions (ADN) | : 144, 601 |
| 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) | : 144, 601 |
| 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) | : T4 |
| Portable tank and bulk container special provisions (RID) | : TP1 |
| 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 101 ; Ethanol ; acetone; propan-2-one; propanone ; butanone; ethyl methyl ketone ; propan-2-ol; isopropyl alcohol; isopropanol |

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| EU restriction list (REACH Annex XVII) | |
|--|--|
| Reference code | Applicable on |
| 3(b) | Hraniclean 101 ; Ethanol ; acetone; propan-2-one; propanone ; Hydrocarbons, C10-C13, n-alkanes, isocyanates, cyclic, <2% aromatics ; butanone; ethyl methyl ketone ; propan-2-ol; isopropyl alcohol; isopropanol |
| 40. | Ethanol ; acetone; propan-2-one; propanone ; butanone; ethyl methyl ketone ; propan-2-ol; isopropyl alcohol; isopropanol |

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 substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)
ANNEX II REPORTABLE EXPLOSIVES PRECURSORS
List of substances on their own or in mixtures or in substances for which suspicious transactions and significant disappearances and thefts are to be reported within 24 hours.

| Name | CAS-No. | Combined Nomenclature code (CN) | Combined Nomenclature code for mixture without constituents which would determine classification under another CN code |
|---------|---------|---------------------------------|--|
| Acetone | 67-64-1 | 2914 11 00 | ex 3824 99 92 |

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 |
|-------------------|----------------|---------|------------|-----------------------|-----------|---------|
| Acetone | | 67-64-1 | 2914 11 00 | Category 3 | | Annex I |
| Methylethylketone | Butanone | 78-93-3 | 2914 12 00 | Category 3 | | Annex I |

National 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)

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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 | Comments |
| | Supersedes | Modified |
| | Revision date | Modified |
| 4.1 | First-aid measures general | Modified |
| 4.1 | First-aid measures after skin contact | Modified |
| 6.1 | Protective equipment | Modified |
| 8.2 | Eye protection | Modified |
| 9 | Flash point | Modified |
| 9 | Density | Added |
| 9 | pH | Added |
| 9 | Other properties | Added |
| 10.1 | Reactivity | Modified |
| 10.2 | Chemical stability | Modified |

| Abbreviations and acronyms: | |
|-----------------------------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| DPD | Dangerous Preparations Directive 1999/45/EC |
| DSD | Dangerous Substances Directive 67/548/EEC |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |

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| Abbreviations and acronyms: | |
|-----------------------------|---|
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| 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.

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| 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. |
| H304 | May be fatal if swallowed and enters airways. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| 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 |
| Eye Irrit. 2 | H319 | 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.