

LP 407/13 RI 407

Issue date: 17/07/2018

 according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
 Revision date: 01/11/2023 Supersedes version of: 03/11/2021

Version: 2.2

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

1.1. Product identifier

Product form : Mixture
 Product name : LP 407/13 RI 407
 UFI : 0204-J067-D006-PAC0

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, Professional use
 Use of the substance/mixture : Cleaners
 Function or use category : Cleaning agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Producer

Riepe GmbH & Co. KG GmbH
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uk-hranipex@hranipex.com - 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	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

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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
 Specific target organ toxicity – Single exposure, Category 3, H336
 Narcosis

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. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP)

: Danger

Contains

: acetone

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

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

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

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

P405 - Store locked up.

P501 - Dispose of contents and 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 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

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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	50 – 100	Flam. Liq. 2, H225
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	25 – 50	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	2.5 – 10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
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

Comments : Ingredients in accordance with the Detergents Regulation (648/2004 / EC):
Perfumes, d-Limonene,

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 you feel unwell, seek medical advice (show the label where possible). Remove contaminated clothing. In case of loss of consciousness, place the victim in the recovery position. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.

First-aid measures after skin contact : Rinse and then wash skin thoroughly with water and soap. Take off immediately all contaminated clothing. Get medical advice if skin irritation persists.

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. Consult an eye specialist.

First-aid measures after ingestion : Rinse mouth out with water. Drink plenty of water. Do not induce vomiting. 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 eye contact : Eye irritation.

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 : Carbon dioxide, extinguishing powder, Water spray, For large fire: Alcohol resistant foam.
Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
Explosion hazard : Vapours may form explosive mixture with air. The vapours are denser than air and may travel along the ground. Distance ignition possible.
Hazardous decomposition products in case of fire : On incomplete combustion releases :

5.3. Advice for firefighters

- Firefighting instructions : Evacuate the danger area. Eliminate all ignition sources if safe to do so. Move containers away from the fire area if this can be done without risk. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. During the fire of the product, keep the safe distance, use suitable breathing protection (isolation device), or self-contained breathing apparatus. Do not breathe fumes from fires or vapours from decomposition.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate unnecessary personnel. Stop leak if safe to do so. Ensure adequate ventilation. Eliminate every possible source of ignition. No open flames. No smoking. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Stop leaks if it can be done without personal risk. Remove ignition sources. No open flames, no sparks, and no smoking. Avoid contact with skin, eyes and clothing. Avoid breathing Vapours. Keep upwind.

6.1.2. 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

Prevent liquid from entering sewers, watercourses, underground or low areas. Dilute with plenty of water. 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 with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Collect all waste in suitable and labelled containers and dispose according to local legislation. Ensure adequate ventilation. Non-sparking tools should be used.

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 : May form flammable/explosive vapour-air mixture. Handle empty containers with care because residual vapours are flammable.

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Precautions for safe handling	: Ensure adequate air ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only non-sparking tools. Flammable vapours heavier than air/can accumulate. Wear personal protective equipment. Avoid breathing Vapours. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Handle and open container with care. Keep away from food, drink and animal feeding stuffs. Keep away from Incompatible products.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ensure adequate ventilation, especially in confined areas. Proper grounding procedures to avoid static electricity should be followed. Use spark-/explosionproof appliances and lighting system.
Storage conditions	: Store in dry, cool, well-ventilated area. Keep container tightly closed and away from heat, sparks and flame. Store away from direct sunlight or other heat sources. Prevent build-up of electrostatic charges (e.g. by grounding). Prevent unauthorised access.
Incompatible materials	: Store away from oxidation agents.
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

8.1.1 National occupational exposure and biological limit values

acetone; propan-2-one; propanone (67-64-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetone
IOEL TWA	1210 mg/m ³
IOEL TWA [ppm]	500 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Acetone
WEL TWA (OEL TWA) [1]	1210 mg/m ³
WEL TWA (OEL TWA) [2]	500 ppm
WEL STEL (OEL STEL)	3620 mg/m ³
WEL STEL (OEL STEL) [ppm]	1500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Ethanol (64-17-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA) [1]	1920 mg/m ³
WEL TWA (OEL TWA) [2]	1000 ppm
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) [1]	999 mg/m ³
WEL TWA (OEL TWA) [2]	400 ppm
WEL STEL (OEL STEL)	1250 mg/m ³
WEL STEL (OEL STEL) [ppm]	500 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/m ³
IOEL TWA [ppm]	200 ppm
IOEL STEL	900 mg/m ³
IOEL STEL [ppm]	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) [1]	600 mg/m ³
WEL TWA (OEL TWA) [2]	200 ppm
WEL STEL (OEL STEL)	899 mg/m ³
WEL STEL (OEL STEL) [ppm]	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

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

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

DNEL/DMEL (Workers)

Acute - local effects, inhalation	2420 mg/m ³
Long-term - systemic effects, dermal	186 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1210 mg/m ³

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

DNEL/DMEL (General population)

Long-term - systemic effects, oral	62 mg/kg bodyweight/day
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	29.5 mg/kg dwt
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Ethanol (64-17-5)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	8.238 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	380 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m ³

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
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PNEC (STP)

PNEC sewage treatment plant	580 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 ³ (8h)

DNEL/DMEL (General population)

Long-term - systemic effects, oral	26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	89 mg/m ³ (24h)
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
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PNEC (STP)

PNEC sewage treatment plant	2251 mg/l
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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 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
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8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure that there is a suitable ventilation system. Provide local exhaust or general room ventilation.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure. Wear recommended personal protective equipment.

8.2.2.1. Eye and face protection

Eye protection:

Sealed safety goggles. EN166

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8.2.2.2. Skin protection**Skin and body protection:**

When skin contact is possible, protective clothing including gloves, apron, sleeves, boots, head and face protection must be worn. Chemical resistant safety shoes. Wear suitable protective clothing. ISO 13688

Hand protection:

Chemical resistant gloves (according to European standard ISO 374-1 or equivalent). Recommended materials. Butyl rubber gloves. Fluorocarbon rubber (Viton). Follow the glove manufacturer's specific recommendations when selecting the appropriate thickness, material, and permeability.

8.2.2.3. Respiratory protection**Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment. Long term exposure. Appropriate self-contained breathing apparatus may be required. Short term exposure. Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust. EN 14387

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls**Environmental exposure controls:**

Avoid release to the environment.

Other information:

Always wash hands after handling the product. Do not eat, drink or smoke in areas where product is used. Immediately remove contaminated clothing or footwear. Keep away from food, drink and animal feeding stuffs.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Colour	: Yellow.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -80 °C
Boiling point	: > 65 °C
Flammability	: Not applicable
Explosive properties	: Explosive vapour/air mixtures may be formed.
Lower explosion limit	: 2.5 vol % (EN 1839)
Upper explosion limit	: 15 vol % (CAS 64-17-5)
Flash point	: < 21 °C
Auto-ignition temperature	: 425 °C (CAS 64-17-5)
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 247 kPa (CAS 67-64-1)
Vapour pressure at 50°C	: Not available
Density	: 0.79 g/cm ³
Relative density	: Not available
Relative vapour density at 20°C	: Not available
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

VOC content : 789.7 g/l

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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

May form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid

Direct sunlight. Heat. Ignition sources. Sparks. Open flame. Incompatible materials. Avoid static electricity discharges.

10.5. Incompatible materials

Strong oxidizing agents.

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)

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

LD50 oral rat	5800 mg/kg
LD50 dermal rabbit	7426 – 15800 mg/kg
LC50 Inhalation - Rat (Vapours)	76 mg/l/4h

Ethanol (64-17-5)

LD50 oral rat	10470 mg/kg (OECD 401)
LD50 dermal rabbit	> 2000 mg/kg (OECD 402)
LC50 Inhalation - Rat	> 50 mg/l (OECD 403)
LC50 Inhalation - Rat (Vapours)	> 20 mg/l/4h

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

LD50 oral rat	4570 mg/kg
LD50 oral	5840 mg/kg (OECD 401)
LD50 dermal rat	13400 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	30 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

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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	: May cause drowsiness or dizziness.

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

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

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)
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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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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 %
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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)
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Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)
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acetone; propan-2-one; propanone (67-64-1)

LC50 - Fish [1]	5540 mg/l (Oncorhynchus mykiss)
LC50 - Fish [2]	7500 mg/l (Leuciscus idus)
EC50 - Crustacea [1]	8800 mg/l (Daphnia magna)
EC50 - Other aquatic organisms [1]	8300 mg/l (Lepomis macrochirus)
EC50 96h - Algae [1]	7500 mg/l (Selenastrum capricornutum)

Ethanol (64-17-5)

LC50 - Fish [1]	8140 mg/l (Leuciscus idus) 48h
EC50 - Crustacea [1]	> 10000 mg/l (Daphnia magna)
EC50 72h - Algae [1]	275 mg/l (Chlorella vulgaris) (OECD 201)
EC50 72h - Algae [2]	> 100 mg/l static

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

LC50 - Fish [1]	> 100 mg/l (Leuciscus idus)
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propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

LC50 - Fish [2]	> 10000 mg/l (Pimephales promelas) (OECD 203)
EC50 - Crustacea [1]	> 100 mg/l (Daphnia magna)
EC50 - Other aquatic organisms [1]	1050 mg/l (Pseudomonas putida) (DIN 38412 T.8)
EC50 72h - Algae [1]	> 100 mg/l (Scenedesmus subspicatus)

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

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

12.2. Persistence and degradability

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Persistence and degradability	No information available.
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propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)

Biochemical oxygen demand (BOD)	1.72 g O ₂ /g substance (Verordnung (EC) Nr. 440/2008, Anhang, C.)
Chemical oxygen demand (COD)	2.23 g O ₂ /g substance (Verordnung (EC) Nr. 440/2008, Anhang, C.)
BOD (% of ThOD)	49 % ThOD
Biodegradation	53 % 5d BSB5/CS (92/69/EG (L383) C.5 * Abbaubarkeit)

12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.
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12.4. Mobility in soil

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Ecology - soil	No information 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 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

Additional information : Do not allow large quantities, as are, to spread into the environment. Do not discharge into drains or rivers

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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.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Recycling is preferred to disposal or incineration.
Additional information	: Do not remove as household garbage. Flammable vapours may accumulate in the container. Vapour could form explosive mixture with air. Handle uncleaned empty containers as full ones.
Ecology - waste materials	: 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. HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

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.
Transport document description (ADR)				
UN 1993 FLAMMABLE LIQUID, N.O.S. (acetone; propan-2-one; propanone ; Ethanol), 3, II, (D/E)	UN 1993 FLAMMABLE LIQUID, N.O.S. (acetone; propan-2-one; propanone ; Ethanol), 3, II	UN 1993 Flammable liquid, n.o.s. (acetone; propan-2-one; propanone ; Ethanol), 3, II	UN 1993 FLAMMABLE LIQUID, N.O.S. (acetone; propan-2-one; propanone ; Ethanol), 3, II	UN 1993 FLAMMABLE LIQUID, N.O.S. (acetone; propan-2-one; propanone ; Ethanol), 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
II	II	II	II	II

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
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
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
- Tank special provisions (IMDG) : TP1, TP28, TP8
- EmS-No. (Fire) : F-E
- EmS-No. (Spillage) : S-E
- 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

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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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(a)	LP 407/13 RI 407 ; acetone; propan-2-one; propanone ; Ethanol ; propan-2-ol; isopropyl alcohol; isopropanol ; butanone; ethyl methyl ketone
3(b)	LP 407/13 RI 407 ; acetone; propan-2-one; propanone ; propan-2-ol; isopropyl alcohol; isopropanol ; butanone; ethyl methyl ketone
40.	acetone; propan-2-one; propanone ; Ethanol ; propan-2-ol; isopropyl alcohol; isopropanol ; butanone; ethyl methyl ketone

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)

VOC Directive (2004/42)

VOC content : 789.7 g/l

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 to the relevant national contact point within 24 hours.

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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

Please see https://home-affairs.ec.europa.eu/policies/internal-security/counter-terrorism-and-radicalisation/protection/legislation-chemicals-used-home-made-explosives_en

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	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

15.1.2. National regulations

Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals

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)

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 REACH.
 GB CLP.
 UK Waste Regulations.

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Excepted quantities (IMDG)	Added	
	Limited quantities (IMDG)	Added	
	Revision date	Modified	
	Supersedes	Modified	
	Tank special provisions (IMDG)	Modified	
3	Composition/information on ingredients	Modified	
6.2	Environmental precautions	Modified	
6.3	Methods for cleaning up	Modified	
7.2	Storage conditions	Modified	
8.2	Other information	Added	
8.2	Respiratory protection	Modified	
8.2	Hand protection	Modified	
8.2	Eye protection	Modified	

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Indication of changes

Section	Changed item	Change	Comments
8.2	Skin and body protection	Modified	
9.1	Vapour pressure	Added	
9.1	Vapour pressure at 50°C	Modified	
9.1	Freezing point	Modified	
9.1	Density	Modified	
9.2	VOC content	Added	
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
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
EC50	Median effective concentration
LC50	Median lethal concentration
LD50	Median lethal dose
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 : Normal use of this product shall imply use in accordance with the instructions on the packaging. Provide SDS to employees. Follow general rules on handling chemical substances and/or mixtures.

Full text of H- and EUH-statements:

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.
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	On basis of test data
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method

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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.