

# LPZ / II RI 001

Issue date: 31/05/2017

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Revision date: 16/03/2023

Supersedes version of: 19/09/2021

Version: 106.2

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

### 1.1. Product identifier

Product form : Mixture  
 Product name : LPZ/II RI 001  
 UFI : 0020-T0PQ-U00F-1VQ8

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

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only  
 Use of the substance/mixture : Release 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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#### Distributor

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#### Supplier

Hranipex Ltd.  
 Unit 2 Radial Park, Birmingham Business Park  
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### 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

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

#### Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye irritation.

### 2.2. Label elements

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

Hazard pictograms (CLP)



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.  
P370+P378 - In case of fire: Use carbon dioxide (CO<sub>2</sub>), dry extinguishing powder, Water spray to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
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

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
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 Eye Irrit. 2, H319
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	$\leq 1$	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066

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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	: Remove soiled clothing promptly.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If symptoms persist call a doctor.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-aid measures after ingestion	: Rinse mouth. Drink plenty of water. Do not induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects after eye contact	: Eye irritation.
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### 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	: Dry powder. Carbon dioxide. 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	: Vapours may form explosive mixture with air. Vapours are heavier than air and may spread along floors. Risk of ignition at distance.
Hazardous decomposition products in case of fire	: On burning: release of carbon monoxide - carbon dioxide.

### 5.3. Advice for firefighters

Firefighting instructions	: Evacuate the danger area. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment	: Wear proper protective equipment.
Emergency procedures	: Ensure adequate ventilation. Prevent unauthorised access. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Remove ignition sources. Avoid contact with skin, eyes and clothing. Do not breathe vapours, spray, fume. Prevent the build-up of electrostatic charge.

#### 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".
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### 6.2. Environmental precautions

Do not allow product to spread into the environment. Dilute with plenty of water. Advise local authorities if considered necessary.

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

- Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect all waste in suitable and labelled containers and dispose according to local legislation. Non-sparking tools should be used.
- Other information : Dispose of contaminated material at an authorized site. Ventilate spillage area.

## 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 : Good ventilation of the workplace required. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures to prevent the formation of static electricity. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapour/aerosol. Keep container closed when not in use.
- 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 : Ground/bond container and receiving equipment.
- Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Store away from direct sunlight or other heat sources. Keep away from ignition sources.
- Incompatible materials : Store away from oxidation agents. Light metals (Al, Zn).
- Special rules on packaging : 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

Ethanol (64-17-5)	
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA) [1]	1920 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1000 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 <sup>3</sup>
IOEL TWA [ppm]	200 ppm
IOEL STEL	900 mg/m <sup>3</sup>
IOEL STEL [ppm]	300 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

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

### United Kingdom - Occupational Exposure Limits

Local name	Butan-2-one (methyl ethyl ketone)
WEL TWA (OEL TWA) [1]	600 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	200 ppm
WEL STEL (OEL STEL)	899 mg/m <sup>3</sup>
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

#### Monitoring methods

Monitoring methods	Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents.
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### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

#### 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 <sup>3</sup>

##### DNEL/DMEL (General population)

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

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

### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	1.161 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)	284.74 mg/kg dwt
PNEC sediment (marine water)	284.74 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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#### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### 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:

Wear tight fitting safety glasses or facial screen

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Impervious clothing. Chemical resistant safety shoes

##### Hand protection:

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

### Hand protection

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Wear gloves according to EN374 resistant to the solvent(s) in use.	Butyl rubber	6 (> 480 minutes)	>0.7 mm	x	x

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## Hand protection

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Wear gloves according to EN374 resistant to the solvent(s) in use.	Fluorocarbon rubber (Viton)	6 (> 480 minutes)	>0.7mm	x	x

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## Respiratory protection

Device	Filter type	Condition	Standard
Gas filters	Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust	Short term exposure	x
Self-contained breathing apparatus (SCBA)	x	Long term exposure	x

### 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:

Wash protective equipment and clothing before reuse. Avoid contact with skin and eyes.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Colourless.
Odour	: alcoholic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -114.5 °C
Boiling point	: 78 °C
Flammability	: Not applicable
Explosive properties	: The product is not explosive. May form an explosive mixture with air.
It does not have oxidising properties	: No data available.
Explosion limits	: Not available
Lower explosion limit	: 3.5 vol %
Upper explosion limit	: 15 vol %
Flash point	: 13 °C
Auto-ignition temperature	: Not self-igniting
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 1.519 mm <sup>2</sup> /s
Viscosity, dynamic	: 1.2 mPa.s
Solubility	: Water: 1000 g/l (@20 °C)
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 57 hPa (CAS 64-17-5)
Vapour pressure at 50°C	: Not available
Density	: 0.79 g/cm <sup>3</sup> (@ 20 °C)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

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## 9.2. Other information

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

No additional information available

### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Oxidizing agent. Light metals (Al, Zn).

### 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) : Based on available data, the classification criteria are not met  
 Acute toxicity (dermal) : Based on available data, the classification criteria are not met  
 Acute toxicity (inhalation) : Based on available data, the classification criteria are not met

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

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 (Vapours)	40 mg/l/4h

Skin corrosion/irritation : Based on available data, the classification criteria are not met  
 Serious eye damage/irritation : Causes serious eye irritation.  
 Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.  
 Germ cell mutagenicity : Based on available data, the classification criteria are not met.  
 Carcinogenicity : Based on available data, the classification criteria are not met.  
 Reproductive toxicity : Based on available data, the classification criteria are not met.  
 STOT-single exposure : Based on available data, the classification criteria are not met.

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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	: Based on available data, the classification criteria are not met.
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Aspiration hazard	: Based on available data, the classification criteria are not met.
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## LPZ/II RI 001

Viscosity, kinematic	1.519 mm <sup>2</sup> /s
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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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## Ethanol (64-17-5)

LC50 - Fish [1]	8140 mg/l (Leuciscus idus) 48h
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EC50 - Crustacea [1]	> 10000 mg/l (Daphnia magna)
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EC50 72h - Algae [1]	275 mg/l (Chlorella vulgaris) (OECD 201)
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## butanone; ethyl methyl ketone (78-93-3)

LC50 - Fish [1]	> 3000 mg/l
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EC50 - Crustacea [1]	1382 mg/l
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## 12.2. Persistence and degradability

### LPZ/II RI 001

Persistence and degradability	No information available.
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## 12.3. Bioaccumulative potential

### LPZ/II RI 001

Bioaccumulative potential	No information available.
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## 12.4. Mobility in soil

### LPZ/II RI 001

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

Component	
Ethanol (64-17-5)	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
butanone; ethyl methyl ketone (78-93-3)	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 : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Sewage disposal recommendations : Do not dispose of waste into sewer.  
Product/Packaging disposal recommendations : Recycling is preferred to disposal or incineration.  
Additional information : Flammable vapours may accumulate in the container. To be disposed of as hazardous waste.  
Ecology - waste materials : Avoid release to the environment. Do not dispose of waste into sewer.  
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.

## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170
<b>14.2. UN proper shipping name</b>				
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

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ADR	IMDG	IATA	ADN	RID
<b>Transport document description (ADR)</b>				
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 Ethanol solution, 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II
<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: 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)	: 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	: •2Y

### Transport by sea

Special provisions (IMDG)	: 144
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: A

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	LPZ/II RI 001 ; Ethanol ; butanone; ethyl methyl ketone
3(b)	LPZ/II RI 001 ; Ethanol ; butanone; ethyl methyl ketone
40.	Ethanol ; butanone; ethyl methyl ketone

##### REACH Annex XIV (Authorisation List)

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

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## 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)

## 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	Threshold	Annex
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 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)

### 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	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
	Properties and observations (IMDG)	Added	
3	Composition/information on ingredients	Modified	
5.1	Suitable extinguishing media	Modified	
5.3	EAC code	Added	
6.4	Reference to other sections (8, 13)	Modified	
7.2	Incompatible materials	Modified	
8.2	Other information	Modified	
8.2	Eye protection	Modified	

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## Indication of changes

Section	Changed item	Change	Comments
9.1	Solubility in water	Added	
9.1	Viscosity, dynamic	Added	
9.1	Upper explosive limit (UEL)	Modified	
9.1	Lower explosive limit (LEL)	Modified	
9.1	Vapour pressure	Modified	
9.1	Freezing point	Modified	
9.1	Flash point	Modified	
9.1	Boiling point	Modified	
9.1	Density	Modified	
14.2	Proper Shipping Name (ADR)	Modified	
15.1	British National Regulations	Modified	

## Abbreviations and acronyms:

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

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

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:

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.

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

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

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.