

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Name : ALU-ZINC  
Trade name : ALU-ZINC  
Vaporizer : Aerosol

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : The product is intended for professional use

**1.2.2. Uses advised against**

No additional information available

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

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[www.novol.com](http://www.novol.com)

E-mail address of competent person responsible for the SDS : [dokumentacja@novol.com](mailto:dokumentacja@novol.com)

**1.4. Emergency telephone number**

Emergency number : 112

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Aerosol, Category 1	H222;H229
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

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

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

No additional information available

**2.2. Label elements****Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS02

GHS07

GHS09

Signal word (CLP) :

Danger

Contains :

dimethyl ether; acetone; Hydrocarbons, C9, aromatics

Hazard statements (CLP) :

H222 - Extremely flammable aerosol.

H229 - Pressurised container: May burst if heated.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

H411 - Toxic to aquatic life with long lasting effects.

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Precautionary statements (CLP)	: P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 - Do not spray on an open flame or other ignition source. P251 - Do not pierce or burn, even after use. P260 - Do not breathe vapours, spray. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C, 122 °F.
EUH-statements	: EUH066 - Repeated exposure may cause skin dryness or cracking.

### 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]
dimethyl ether (Propellant gas (Aerosol)) substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit (Note U)	CAS-No.: 115-10-6 EC-No.: 204-065-8 EC Index-No.: 603-019-00-8 REACH-no: 01-2119472128-37	< 50	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
acetone substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 67-64-1 EC-No.: 200-662-2 EC Index-No.: 606-001-00-8 REACH-no: 01-2119471330-49	< 25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Hydrocarbons, C9, aromatics	EC-No.: 918-668-5 REACH-no: 01-2119455851-35	< 20	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
zinc powder— zinc dust (stabilised)	CAS-No.: 7440-66-6 EC-No.: 231-175-3 EC Index-No.: 030-001-01-9 REACH-no: xxxxx	< 10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
aluminium powder (stabilised) substance with national workplace exposure limit(s) (GB) (Note T)	CAS-No.: 7429-90-5 EC-No.: 231-072-3 EC Index-No.: 013-002-00-1	< 5	Water-react. 2, H261 Flam. Sol. 1, H228

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
xylene substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216-32	< 5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
zinc oxide	CAS-No.: 1314-13-2 EC-No.: 215-222-5 EC Index-No.: 030-013-00-7 REACH-no: 01-2119463881-32	≤ 0.5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note T - This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.

Note U - When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.

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	: General information. Refer to section 11.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If skin irritation continues, consult 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. Call a physician immediately. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion	: If swallowed: rinse mouth. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation	: Vapours may cause drowsiness and dizziness.
Symptoms/effects after skin contact	: Prolonged or repeated contact may cause skin to become dry.
Symptoms/effects after eye contact	: May cause eye irritation.

#### 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 chemical, CO <sub>2</sub> , alcohol-resistant foam or waterspray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : Carbon monoxide. Other toxic gases.

### 5.3. Advice for firefighters

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 : Remove ignition sources. Ensure that there is a suitable ventilation system. Avoid any direct or indirect contact with ingredients released. Avoid contact with skin and eyes. Use personal protective equipment as required. See Section 8.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. See Section 8.

### 6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter into surface water or drains. Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

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

For containment : Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Mechanically recover the product.

### 6.4. Reference to other sections

Disposal considerations. See Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Pressurized container. Do not spray on an open flame or other ignition source. Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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 : Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Keep away from ignition sources. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep out of reach of children.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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

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<b>dimethyl ether (115-10-6)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Dimethylether
IOEL TWA [ppm]	1000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Dimethyl ether
WEL TWA (OEL TWA) [1]	766 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	400 ppm
WEL STEL (OEL STEL)	958 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>acetone (67-64-1)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Acetone
IOEL TWA [ppm]	500 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Acetone
WEL TWA (OEL TWA) [1]	1210 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	500 ppm
WEL STEL (OEL STEL)	3620 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	1500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>aluminium powder (stabilised) (7429-90-5)</b>	
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Aluminium
WEL TWA (OEL TWA) [1]	2 mg/m <sup>3</sup> alkyl compounds 2 mg/m <sup>3</sup> salts, soluble 10 mg/m <sup>3</sup> metal, inhalable dust 4 mg/m <sup>3</sup> metal, respirable dust
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>xylene (1330-20-7)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Xylene, mixed isomers, pure
IOEL TWA [ppm]	50 ppm
IOEL STEL	442 mg/m <sup>3</sup>
IOEL STEL [ppm]	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

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xylene (1330-20-7)	
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m <sup>3</sup> o-,m-,p- or mixed isomers
WEL TWA (OEL TWA) [2]	50 ppm o-,m-,p- or mixed isomers
WEL STEL (OEL STEL)	441 mg/m <sup>3</sup> o-,m-,p- or mixed isomers
WEL STEL (OEL STEL) [ppm]	100 ppm o-,m-,p- or mixed isomers
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
<b>United Kingdom - Biological limit values</b>	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

### 8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	EN 482. Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents.

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 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 symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Protective gloves

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Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Viton® II	6 (> 480 minutes)	0,7 mm		EN 374-3
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0,4 mm		EN 374-3

### 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 mask with filter type	Filter A1/B1		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.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Silver.
Appearance	: Aerosol.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not applicable
Flammability	: Not applicable
Explosive properties	: No data available.
Explosive limits	: Not available
Lower explosion limit	: 0.7 vol %
Upper explosion limit	: 26.2 vol %
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Slightly soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 4000 hPa
Vapour pressure at 50°C	: Not available
Density	: ≈ 0.8 g/cm <sup>3</sup>
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

% of flammable ingredients : < 90 %

#### 9.2.2. Other safety characteristics

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions of use.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Prevent build-up of electrostatic charges (e.g. by grounding).

#### 10.5. Incompatible materials

No contact with: strong acids, strong bases and strong oxidants.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Carbon monoxide. Other toxic gases.

### 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)

<b>dimethyl ether (115-10-6)</b>	
LC50 Inhalation - Rat	308.5 mg/l Source: International Uniform Chemical Information Database
LC50 Inhalation - Rat [ppm]	164000 ppm Animal: rat, Animal sex: male, 95% CL: 142000 - 203000
<b>acetone (67-64-1)</b>	
LD50 oral rat	5800 mg/kg bodyweight Animal: rat, Animal sex: female
LD50 dermal rabbit	> 7400 mg/kg Source: ECHA
LC50 Inhalation - Rat	76 mg/l air Animal: rat, Animal sex: female, 95% CL: 65,2 - 88,4
LC50 Inhalation - Rat (Vapours)	76 mg/l Source: ECHA
<b>Hydrocarbons, C9, aromatics</b>	
LD50 dermal rabbit	> 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 6193 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:
<b>zinc powder— zinc dust (stabilised) (7440-66-6)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 5.41 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)



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<b>aluminium powder (stabilised) (7429-90-5)</b>	
LD50 oral rat	> 15900 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 0.888 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:
<b>xylene (1330-20-7)</b>	
LD50 oral rat	3523 mg/kg rat
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat	27124 mg/l
<b>zinc oxide (1314-13-2)</b>	
LD50 oral rat	> 5000 mg/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA
Skin corrosion/irritation	: Not classified. (Based on available data, the classification criteria are not met)
<b>zinc oxide (1314-13-2)</b>	
pH	6.95 Source: HSDB
Serious eye damage/irritation	: Causes serious eye irritation.
<b>zinc oxide (1314-13-2)</b>	
pH	6.95 Source: HSDB
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)
<b>acetone (67-64-1)</b>	
LOAEL (animal/female, F0/P)	11298 mg/kg bodyweight Animal: mouse, Animal sex: female
NOAEL (animal/male, F0/P)	900 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Generation not specified (migrated information)
STOT-single exposure	: May cause drowsiness or dizziness.
<b>acetone (67-64-1)</b>	
STOT-single exposure	May cause drowsiness or dizziness.
<b>Hydrocarbons, C9, aromatics</b>	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
<b>Hydrocarbons, C9, aromatics</b>	
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
<b>zinc powder— zinc dust (stabilised) (7440-66-6)</b>	
LOAEL (oral, rat, 90 days)	53.8 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	31.52 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
<b>aluminium powder (stabilised) (7429-90-5)</b>	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.05 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

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<b>aluminium powder (stabilised) (7429-90-5)</b>	
NOAEL (subchronic, oral, animal/male, 90 days)	1034 mg/kg bodyweight Animal: dog, Animal sex: male, Guideline: OECD Guideline 409 (Repeated Dose 90-Day Oral Toxicity Study in Non-Rodents)
NOAEL (subchronic, oral, animal/female, 90 days)	1087 mg/kg bodyweight Animal: dog, Animal sex: female, Guideline: OECD Guideline 409 (Repeated Dose 90-Day Oral Toxicity Study in Non-Rodents)
<b>xylene (1330-20-7)</b>	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
<b>zinc oxide (1314-13-2)</b>	
LOAEL (dermal, rat/rabbit, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEL (oral, rat, 90 days)	31.52 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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

<b>ALU-ZINC</b>	
Vaporizer	Aerosol

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

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

Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Not rapidly degradable

<b>dimethyl ether (115-10-6)</b>	
LC50 - Fish [1]	> 4.1 g/l Test organisms (species): Poecilia reticulata
EC50 - Crustacea [1]	> 4.4 g/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	154.917 mg/l Test organisms (species): other:green algae
<b>acetone (67-64-1)</b>	
LC50 - Fish [1]	6210 – 8120 mg/l Source: ECHA
LOEC (chronic)	> 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
<b>Hydrocarbons, C9, aromatics</b>	
EC50 72h - Algae [1]	0.42 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.29 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>aluminium powder (stabilised) (7429-90-5)</b>	
EC50 72h - Algae [1]	1.05 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

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<b>aluminium powder (stabilised) (7429-90-5)</b>	
EC50 72h - Algae [2]	0.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
<b>xylene (1330-20-7)</b>	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

<b>dimethyl ether (115-10-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.1 Source: International Chemical Safety Cards
<b>acetone (67-64-1)</b>	
Partition coefficient n-octanol/water (Log Pow)	-0.24 Source: ICSC
<b>zinc powder— zinc dust (stabilised) (7440-66-6)</b>	
Partition coefficient n-octanol/water (Log Pow)	-0.47 Source: NLM

### 12.4. Mobility in soil

<b>dimethyl ether (115-10-6)</b>	
Mobility in soil	27 Source: National Library of Medicine/Hazardous Substances Data Bank

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## 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 discharge into drains.
Product/Packaging disposal recommendations	: This material and its container must be disposed of as hazardous waste. Do not dispose of with domestic waste. After cleaning, recycle or dispose of at an authorised site.
Additional information	: Flammable vapours may accumulate in the container.
European List of Waste (LoW) code	: 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances




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### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
<b>14.1. UN number or ID number</b>		
UN 1950	UN 1950	UN 1950
<b>14.2. UN proper shipping name</b>		
AEROSOLS	AEROSOLS	Aerosols, flammable
<b>Transport document description</b>		
UN 1950 AEROSOLS, 2.1, (D)	UN 1950 AEROSOLS, 2.1	UN 1950 Aerosols, flammable, 2.1
<b>14.3. Transport hazard class(es)</b>		
2.1	2.1	2.1
		
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR) : 5F  
Limited quantities (ADR) : 1I  
Special packing provisions (ADR) : PP87, RR6, L2  
Mixed packing provisions (ADR) : MP9  
Transport category (ADR) : 2  
Special provisions for carriage - Packages (ADR) : V14

Tunnel restriction code (ADR) : D

#### Transport by sea

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959  
Limited quantities (IMDG) : SP277  
Special packing provisions (IMDG) : PP87, L2  
EmS-No. (Fire) : F-D  
EmS-No. (Spillage) : S-U  
Stowage category (IMDG) : None  
Stowage and handling (IMDG) : SW1, SW22  
Segregation (IMDG) : SG69

#### Air transport

No data available

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

Not applicable

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### 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)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

###### 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)

###### 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.

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
Aluminium, powders	7429-90-5	7603 10 00; ex 7603 20 00	

Please see [https://ec.europa.eu/home-affairs/system/files/2021-11/list\\_of\\_competent\\_authorities\\_and\\_national\\_contact\\_points\\_en.pdf](https://ec.europa.eu/home-affairs/system/files/2021-11/list_of_competent_authorities_and_national_contact_points_en.pdf)

###### 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

##### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

#### Indication of changes:

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#### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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<b>Abbreviations and acronyms:</b>	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : ECHA (European Chemicals Agency).  
Training advice : Handle in accordance with good industrial hygiene and safety procedures.

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4

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Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Sol. 1	Flammable solids, Category 1
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.
H261	In contact with water releases flammable gases.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
Press. Gas (Comp.)	Gases under pressure : Compressed gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis
Water-react. 2	Substances and Mixtures which, in contact with water, emit flammable gases, Category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Aerosol 1	H222;H229	On basis of test data
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Expert judgement

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## Safety Data Sheet

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<b>Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:</b>		
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Aquatic Chronic 2	H411	Calculation method
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Safety Data Sheet (SDS), EU

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