

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

1.1. Product identifier

Product name : ZG-90 SILVER (TIN) 900ml
UFI : A5NY-H8UD-N003-TWPD
Product code : BDS002656BU

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

1.2.1. Relevant identified uses

Main use category : Professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

CRC Industries Europe UK Limited
Wylde Road
Castlefield Industrial Estate
TA6 4DD Bridgwater Somerset
United Kingdom
T +44 1278 727200, F +44 1278 425644
hse.uk@crcind.com, www.crcind.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Brussels	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)

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
Hazardous to the aquatic environment – Chronic Hazard, H411
Category 2
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause drowsiness or dizziness. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.




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2.2. Label elements

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

Hazard pictograms (CLP)	:	  
		GHS02 GHS07 GHS09
Signal word (CLP)	:	Danger
Contains	:	n-butyl acetate; acetone; propan-2-one; propanone; 1-methoxy-2-propanol; monopropylene glycol methyl ether; Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics; Hydrocarbons, C9, aromatics
Hazard statements (CLP)	:	H225 - Highly flammable liquid and vapour. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects.
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. P233 - Keep container tightly closed. P312 - Call a POISON CENTRE or doctor if you feel unwell. P337+P313 - If eye irritation persists: Get medical advice/attention. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	:	EUH066 - Repeated exposure may cause skin dryness or cracking. EUH208 - Contains 4-morpholinecarbaldehyde (4394-85-8). May produce an allergic reaction.

2.3. Other hazards

Contains no PBT and/or 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 substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-butyl acetate substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1 REACH-no: 01-2119485493-29	25 – 50	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
acetone; propan-2-one; propanone substance with national workplace exposure limit(s) (BE); 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	10 – 25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
zinc oxide substance with national workplace exposure limit(s) (BE)	CAS-No.: 1314-13-2 EC-No.: 215-222-5 EC Index-No.: 030-013-00-7 REACH-no: 01-2119463881-32	5 – 10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1-methoxy-2-propanol; monopropylene glycol methyl ether substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 107-98-2 EC-No.: 203-539-1 EC Index-No.: 603-064-00-3 REACH-no: 01-2119457435-35	5 – 10	Flam. Liq. 3, H226 STOT SE 3, H336
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	EC-No.: 919-857-5 REACH-no: 01-2119463258-33	< 2,5	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066
Hydrocarbons, C9, aromatics	CAS-No.: 128601-23-0 EC-No.: 918-668-5 REACH-no: 01-2119455851-35	< 2,5	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
aluminium powder (stabilised) substance with national workplace exposure limit(s) (BE)	CAS-No.: 7429-90-5 EC-No.: 231-072-3 EC Index-No.: 013-002-00-1 REACH-no: 01-2119529243-45	< 2,5	Water-react. 2, H261 Flam. Sol. 1, H228
4-morpholinecarbaldehyde	CAS-No.: 4394-85-8 EC-No.: 224-518-3 REACH-no: 01-2119987993-12	< 1	Skin Sens. 1, H317

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	: Call a poison center or a doctor if you feel unwell. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If signs/symptoms develop, get medical attention.
First-aid measures after skin contact	: Wash skin with plenty of water. Seek medical attention if irritation develops.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Seek medical attention if irritation develops.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.

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

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Firefighting instructions : Move containers from fire area if it can be done without personal risk. Use standard firefighting procedures and consider the hazards of other involved materials.
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 appropriate protective equipment and clothing during clean-up.
Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

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".
Emergency procedures : Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Following product recovery, flush area with water. Take up small spills with dry chemical absorbent. Clean surface thoroughly to remove residual contamination.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid prolonged exposure. Handle in accordance with good industrial hygiene and safety procedures.
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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep container closed when not in use.

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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

n-butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA	241 mg/m³
	50 ppm
IOEL STEL	723 mg/m³
	150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831
Belgium - Occupational Exposure Limits	
Local name	Acétate de n-butyle # n-Butylacetaat
OEL TWA	238 mg/m³
	50 ppm
OEL STEL	712 mg/m³
	150 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
acetone; propan-2-one; propanone (67-64-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetone
IOEL TWA	1210 mg/m³
	500 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	Acétone # Aceton
OEL TWA	594 mg/m³
	246 ppm
OEL STEL	1187 mg/m³
	492 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
zinc oxide (1314-13-2)	
Belgium - Occupational Exposure Limits	
Local name	Zinc (oxyde de) (fraction alvéolaire) # Zinkoxide (inadembare fractie)
OEL TWA	2 mg/m³
OEL STEL	10 mg/m³

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zinc oxide (1314-13-2)	
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	1-Methoxypropanol-2
IOEL TWA	375 mg/m³
	100 ppm
IOEL STEL	568 mg/m³
	150 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	1-Méthoxy-2-propanol # 1-Methoxy-2-propanol
OEL TWA	184 mg/m³
	50 ppm
OEL STEL	369 mg/m³
	100 ppm
Remark	D: la mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air. # D: de vermelding “D” betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
aluminium powder (stabilised) (7429-90-5)	
Belgium - Occupational Exposure Limits	
Local name	Aluminium # Aluminium
OEL TWA	2 mg/m³ (composés alkylés) (en Al) # Aluminiumalkylen (als Al) 1 mg/m³ (métal et composés insolubles, fraction alvéolaire) # (metaal en onoplosbare verbindingen, inadembare fractie)
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
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	
n-butyl acetate (123-86-4)	
PNEC (Water)	
PNEC aqua (freshwater)	0,18 mg/l
PNEC aqua (marine water)	0,018 mg/l
PNEC aqua (intermittent, freshwater)	0,36 mg/l

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n-butyl acetate (123-86-4)	
PNEC (Sediment)	
PNEC sediment (freshwater)	0,981 mg/kg dwt
PNEC sediment (marine water)	0,0981 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0903 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	35,6 mg/l
acetone; propan-2-one; propanone (67-64-1)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	2420 mg/m³
Long-term - systemic effects, dermal	186 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1210 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	62 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	200 mg/m³
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
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l
zinc oxide (1314-13-2)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5 mg/m³
Long-term - local effects, inhalation	0,5 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,5 mg/m³
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	20,6 µg/l

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zinc oxide (1314-13-2)	
PNEC aqua (marine water)	6,1 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	117,8 mg/kg dwt
PNEC sediment (marine water)	56,5 mg/kg dwt
PNEC (Soil)	
PNEC soil	35,6 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 µg/l
1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	553,5 mg/m³
Acute - local effects, inhalation	553,5 mg/m³
Long-term - systemic effects, dermal	183 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	369 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	33 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	43,9 mg/m³
Long-term - systemic effects, dermal	78 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10 mg/l
PNEC aqua (marine water)	1 mg/l
PNEC aqua (intermittent, freshwater)	100 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	52,3 mg/kg dwt
PNEC sediment (marine water)	5,2 mg/kg dwt
PNEC (Soil)	
PNEC soil	4,59 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	208 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	871 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	125 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	185 mg/m³
Long-term - systemic effects, dermal	125 mg/kg bodyweight/day

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Hydrocarbons, C9, aromatics (128601-23-0)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	150 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	11 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	32 mg/m ³
Long-term - systemic effects, dermal	11 mg/kg bodyweight/day

4-morpholinecarbaldehyde (4394-85-8)

DNEL/DMEL (Workers)

Long-term - systemic effects, dermal	11,7 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	50,3 mg/m ³
Long-term - local effects, inhalation	13,3 mg/m ³

DNEL/DMEL (General population)

Long-term - systemic effects, oral	4,17 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8,93 mg/m ³
Long-term - systemic effects, dermal	4,17 mg/kg bodyweight/day
Long-term - local effects, inhalation	13,3 mg/m ³

PNEC (Water)

PNEC aqua (freshwater)	0,5 mg/l
PNEC aqua (marine water)	0,05 mg/l
PNEC aqua (intermittent, freshwater)	5 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	1,85 mg/kg dwt
PNEC sediment (marine water)	0,185 mg/kg dwt

PNEC (Soil)

PNEC soil	0,0764 mg/kg dwt
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PNEC (STP)

PNEC sewage treatment plant	2000 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:

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Use eye protection according to EN 166. Safety glasses with side shields.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear suitable gloves tested to EN374. The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through. Nitrile gloves are recommended.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Approved organic vapour respirator. Filter type: A

8.2.2.4. Thermal hazards

Thermal hazard protection:

Not expected to present a significant hazard under anticipated conditions of normal use. Wear appropriate thermal protective clothing, when necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Grey.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: No data available
Freezing point	: Not available
Boiling point	: ≥ 55 °C
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: -18 °C
Auto-ignition temperature	: > 200
Decomposition temperature	: Not available
pH	: Not applicable
Viscosity, kinematic	: Not available
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not applicable
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1,05 g/cm ³ at 20 °C
Relative density	: 1,05 at 20 °C
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

VOC content : 575 g/l

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.

Hardening time : Not applicable.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Avoid temperatures exceeding the flash point.

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. Carbon oxides (CO, CO2).

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)

n-butyl acetate (123-86-4)	
LD50 oral rat	10760 mg/kg
LD50 dermal rabbit	> 17600 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	23,4 mg/l/4h
acetone; propan-2-one; propanone (67-64-1)	
LD50 oral rat	5800 mg/kg bodyweight
LD50 dermal	> 15688 mg/kg bodyweight
LC50 Inhalation - Rat	76 mg/l/4h
zinc oxide (1314-13-2)	
LD50 oral rat	7950 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	2500 mg/l

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1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
LD50 oral rat	4016 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 25,8 mg/l
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Hydrocarbons, C9, aromatics (128601-23-0)	
LD50 oral rat	3592 mg/kg
LD50 dermal rabbit	> 3160 mg/kg bodyweight
LC50 Inhalation - Rat	> 6,193 mg/l/4h
aluminium powder (stabilised) (7429-90-5)	
LD50 oral rat	> 15900 mg/kg bodyweight
4-morpholinecarbaldehyde (4394-85-8)	
LD50 oral rat	> 7314 mg/kg bodyweight
LD50 dermal rabbit	> 18400 mg/kg bodyweight
LC50 Inhalation - Rat	> 5,319 mg/l/4h
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: Not applicable
n-butyl acetate (123-86-4)	
pH	6,2
4-morpholinecarbaldehyde (4394-85-8)	
pH	10
Serious eye damage/irritation	: Causes serious eye irritation. pH: Not applicable
n-butyl acetate (123-86-4)	
pH	6,2
4-morpholinecarbaldehyde (4394-85-8)	
pH	10
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)
aluminium powder (stabilised) (7429-90-5)	
NOAEL (animal/male, F0/P)	1000 mg/kg bodyweight
STOT-single exposure	: May cause drowsiness or dizziness.
n-butyl acetate (123-86-4)	
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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1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
STOT-single exposure	May cause drowsiness or dizziness.
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
STOT-single exposure	May cause drowsiness or dizziness.
Hydrocarbons, C9, aromatics (128601-23-0)	
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)	
n-butyl acetate (123-86-4)	
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight
1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
LOAEL (oral, rat, 90 days)	2757 mg/kg bodyweight
NOAEL (oral, rat, 90 days)	919 mg/kg bodyweight
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight
Hydrocarbons, C9, aromatics (128601-23-0)	
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight
aluminium powder (stabilised) (7429-90-5)	
NOAEL (subchronic, oral, animal/male, 90 days)	1034 mg/kg bodyweight
NOAEL (subchronic, oral, animal/female, 90 days)	1087 mg/kg bodyweight
4-morpholinecarbaldehyde (4394-85-8)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)	
n-butyl acetate (123-86-4)	
Viscosity, kinematic	0,83 mm²/s
1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)	
Viscosity, kinematic	1,848 mm²/s
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Viscosity, kinematic	1,33 mm²/s

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 substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information
No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
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

n-butyl acetate (123-86-4)

LC50 - Fish [1]	18 mg/l
EC50 - Crustacea [1]	44 mg/l
EC50 72h - Algae [1]	674,7 mg/l
LOEC (chronic)	47,6 mg/l
NOEC (chronic)	23,2 mg/l
NOEC chronic algae	200 mg/l

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

LC50 - Fish [1]	5540 mg/l
EC50 - Other aquatic organisms [1]	12600 mg/l Daphnia magna (Water flea)
LOEC (chronic)	> 79 mg/l
NOEC (chronic)	≥ 79 mg/l

1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)

LC50 - Fish [1]	6812 mg/l
LC50 - Fish [2]	20800 mg/l
EC50 - Crustacea [1]	21100 – 25900 mg/l
EC50 - Other aquatic organisms [1]	2954 mg/l
ErC50 algae	> 1000 mg/l

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l
EC50 - Other aquatic organisms [1]	> 1000 mg/l
EC50 72h - Algae [1]	> 1000 mg/l

Hydrocarbons, C9, aromatics (128601-23-0)

LC50 - Fish [1]	9,2 mg/l
EC50 - Crustacea [1]	3,2 mg/l
EC50 72h - Algae [1]	2,6 – 2,9 mg/l

aluminium powder (stabilised) (7429-90-5)

LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [2]	> 100 mg/l

4-morpholinecarbaldehyde (4394-85-8)

LC50 - Fish [1]	> 500 mg/l Leuciscus idus
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4-morpholinecarbaldehyde (4394-85-8)

EC50 - Crustacea [1]	> 500 mg/l Daphnia magna
EC50 72h - Algae [1]	23880 mg/l Desmodesmus subspicatus
EC50 72h - Algae [2]	17440 mg/l Desmodesmus subspicatus

12.2. Persistence and degradability

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Persistence and degradability	Not established. No data is available on the degradability of this product.
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12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Kow)	Not applicable
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n-butyl acetate (123-86-4)

Partition coefficient n-octanol/water (Log Pow)	2,3
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acetone; propan-2-one; propanone (67-64-1)

Partition coefficient n-octanol/water (Log Pow)	-0,24
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1-methoxy-2-propanol; monopropylene glycol methyl ether (107-98-2)

Bioconcentration factor (BCF REACH)	< 100
Partition coefficient n-octanol/water (Log Pow)	0,37

4-morpholinecarbaldehyde (4394-85-8)

Partition coefficient n-octanol/water (Log Pow)	-1,32
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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Results of PBT assessment	Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII
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12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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European List of Waste (LoW, EC 2000/532) : According to the European Waste Catalogue (EWC), Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used.

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 1263	UN 1263	UN 1263	UN 1263	UN 1263
14.2. UN proper shipping name				
PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta)	PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta)	Paint related material (Zinc Oxide, Solvent naphta)	PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta)	PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta)
Transport document description				
UN 1263 PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta), 3, II, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 1263 Paint related material (Zinc Oxide, Solvent naphta), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta), 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1263 PAINT RELATED MATERIAL (Zinc Oxide, Solvent naphta), 3, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
3	3	3	3	3
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 163, 367, 640C, 650
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001
Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions (ADR) : TP1, TP8, TP28
Tank code (ADR) : L1.5BN
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Operation (ADR) : S2, S20
Hazard identification number (Kemler No.) : 33

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Orange plates	:	<div><div>33</div><div>1263</div></div>
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Tunnel restriction code (ADR) : D/E

Transport by sea

Special provisions (IMDG)	:	163, 367
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
Special packing provisions (IMDG)	:	PP1
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1, TP8, TP28
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-E
Stowage category (IMDG)	:	B
Properties and observations (IMDG)	:	Miscibility with water depends upon the composition.

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, A72, A192
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Special provisions (ADN)	:	163, 367, 640C, 650
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E2
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)	:	163, 367, 640C, 650
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001
Special packing provisions (RID)	:	PP1
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1, TP8, TP28
Tank codes for RID tanks (RID)	:	L1.5BN
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

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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)

VOC Directive (2004/42)

VOC content : 575 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 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

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

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

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate

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Abbreviations and acronyms:

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

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.

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Full text of H- and EUH-statements:	
EUH208	Contains 4-morpholinecarbaldehyde (4394-85-8). May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Sol. 1	Flammable solids, Category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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.
Skin Sens. 1	Skin sensitisation, Category 1
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

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