SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

NOVALUBE AEROSOL 100ml

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

1.1. Product identifier

Product name : NOVALUBE AEROSOL 100ml
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Lubricant

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
🖷 +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
🖷 +32 14 85 97 38
info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.
Skin Irrit.	category 2	H315: Causes skin irritation.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

2.2. Label elements


Signal word Danger
H-statements
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
P-statements
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.

P280	Wear protective gloves, protective clothing and eye protection/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

Supplemental information

EUH208 Contains: benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts. May produce an allergic reaction.

2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
propane 01-2119486944-21	74-98-6 200-827-9	25% ≤C≤50%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant	
butane 01-2119474691-32	106-97-8 203-448-7	25% ≤C≤50%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Propellant	
naphtha (petroleum), hydrotreated light 01-2119475133-43	64742-49-0 265-151-9	C≤14%	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(2)(10)	Constituent	
calcium dihydroxide 01-2119475151-45	1305-62-0 215-137-3	C<3%	Eye Dam. 1; H318 Skin Irrit. 2; H315 STOT SE 3; H335	(1)(2)	Constituent	
copper	7440-50-8 231-159-6	C≤1.4%	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	(1)(2)(10)	Constituent	M: 10 (Acute, ECHA)
aluminium powder 01-2119529243-45	7429-90-5 231-072-3	C≤3%	Flam. Sol. 1; H228 Water-react. 2; H261	(1)(2)(10)	Constituent	
zinc oxide 01-2119463881-32	1314-13-2 215-222-5	C≤0.87%	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)	Constituent	M: 1 (Acute, ECHA) M: 1 (Chronic, ECHA)
benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts 01-2119978241-36	1471316-72-9	C≤1%	Skin Sens. 1B; H317 Skin Sens. 1; H317: C>10%, (ECHA)	(1)(10)	Constituent	

(1) For H- and EUH-statements in full: see section 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006
(21) 1,3-butadiene <0.1%

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

4.2.1 Acute symptoms

After inhalation:
EXPOSURE TO HIGH CONCENTRATIONS: Headache. Nausea. Dizziness.

After skin contact:
Tingling/irritation of the skin.

After eye contact:
Irritation of the eye tissue.

After ingestion:
No effects known.

4.2.2 Delayed symptoms
No effects known.

4.3. Indication of any immediate medical attention and special treatment needed
If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media
5.1.1 Suitable extinguishing media:
Small fire: Water, Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.
Major fire: Quantities of water.

5.2. Special hazards arising from the substance or mixture
Upon combustion: CO and CO2 are formed. Pressurised container: May burst if heated.

5.3. Advice for firefighters
5.3.1 Instructions:
If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:
Gloves (EN 374). Protective goggles (EN 166). Head/neck protection. Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

6.1.1 Protective equipment for non-emergency personnel
See section 8.2

6.1.2 Protective equipment for emergency responders
Gloves (EN 374). Protective goggles (EN 166). Head/neck protection. Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing
See section 8.2

6.2. Environmental precautions
Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up
Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections
See section 13.

SECTION 7: Handling and storage
The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling
Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe strict hygiene. Remove contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities
7.2.1 Safe storage requirements:
Storage temperature: < 50 °C. Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Fireproof storeroom. Keep out of direct sunlight. Meet the legal requirements.

7.2.2 Keep away from:
Heat sources, ignition sources, (strong) acids, (strong) bases, oxidizing agents.

7.2.3 Suitable packaging material:
Aerosol.

7.2.4 Non suitable packaging material:
No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

EU

Calcium dihydroxide	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1 mg/m³ (2)
	Short time value (Indicative occupational exposure limit value)	4 mg/m³ (2)

(2): Respirable fraction

Belgium

Aluminium (métal et composés insolubles, fraction alvéolaire)	Time-weighted average exposure limit 8 h	1 mg/m³
Butane, tous isomères: n-butane	Short time value	980 ppm
	Short time value	2370 mg/m³
Calcium (dihydroxyde de) (fraction alvéolaire)	Time-weighted average exposure limit 8 h	1 mg/m³
	Short time value	4 mg/m³
Cuivre (fumées) (en Cu)	Time-weighted average exposure limit 8 h	0.2 mg/m³
Cuivre (poussières et brouillards de) (en Cu)	Time-weighted average exposure limit 8 h	1 mg/m³
Huiles minérales (brouillards)	Time-weighted average exposure limit 8 h	5 mg/m³
	Short time value	10 mg/m³
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3)	Time-weighted average exposure limit 8 h	1000 ppm
Zinc (oxyde de) (fraction alvéolaire)	Time-weighted average exposure limit 8 h	2 mg/m³
	Short time value	10 mg/m³

The Netherlands

Calcium-dihydroxide	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.33 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	1 mg/m³
	Short time value (Public occupational exposure limit value)	1.3 ppm
	Short time value (Public occupational exposure limit value)	4 mg/m³
Koper en anorganische koperverbindingen (inhaleerbaar)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.038 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.1 mg/m³
Olienevel (minerale olie)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	5 mg/m³

France

Aluminium (métal)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³
Aluminium (pulvérulent)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	5 mg/m³
Calcium (hydroxyde de) fraction alvéolaire	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1 mg/m³
	Short time value	4 mg/m³
Cuivre (fumées)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.2 mg/m³
Cuivre (poussières), en Cu	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	2 mg/m³
n-Butane	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	800 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1900 mg/m³
Zinc (oxyde de, fumées)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	5 mg/m³
Zinc (oxyde de, poussières)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³

Germany

Butan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm

Butan	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m³
Calciumdihydroxid	Time-weighted average exposure limit 8 h (TRGS 900)	1 mg/m³
Propan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1800 mg/m³

Austria

Butan (beide Isomeren): n-Butan (R 600) Isobutan (R 600a)	Tagesmittelwert (MAK)	800 ppm
	Tagesmittelwert (MAK)	1900 mg/m³
	Kurzzeitwert 60(Mow) 3x (MAK)	1600 ppm
	Kurzzeitwert 60(Mow) 3x (MAK)	3800 mg/m³
Calciumdihydroxid	Tagesmittelwert (MAK)	1 mg/m³
	Kurzzeitwert 5(Mow) 8x (MAK)	4 mg/m³
Kupfer und seine Verbindungen(als Rauch)	Tagesmittelwert (MAK)	0.1 mg/m³
	Kurzzeitwert 15(Miw) 4x (MAK)	0.4 mg/m³
Kupfer und seine Verbindungen	Tagesmittelwert (MAK)	1 mg/m³
	Kurzzeitwert 15(Miw) 4x (MAK)	4 mg/m³
Propan (R 290)	Tagesmittelwert (MAK)	1000 ppm
	Tagesmittelwert (MAK)	1800 mg/m³
	Kurzzeitwert 60(Mow) 3x (MAK)	2000 ppm
	Kurzzeitwert 60(Mow) 3x (MAK)	3600 mg/m³

UK

Aluminium metal inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Aluminium metal respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Butane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1450 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	750 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1810 mg/m³
Calcium hydroxide (Respirable fraction)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	4 mg/m³
Calcium hydroxide	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	5 mg/m³
Copper and compounds: dusts and mists (as Cu)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	2 mg/m³
Copper fume	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.2 mg/m³

USA (TLV-ACGIH)

Aluminium metal and insoluble compounds	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m³ (R)
Butane, isomers	Short time value (TLV - Adopted Value)	1000 ppm
Calcium hydroxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	5 mg/m³
Copper dusts and mists, as Cu	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m³
Copper fume, as Cu	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.2 mg/m³
Mineral oil, excluding metal working fluids: Pure, highly and severely refined	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	5 mg/m³ (I)
Zinc oxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m³ (R)
	Short time value (TLV - Adopted Value)	10 mg/m³ (R)

(R): Respirable fraction
(I): Inhalable fraction

b) National biological limit values

If limit values are applicable and available these will be listed below.

Germany

Aluminium (Aluminium)	Urin: bei langzeitexposition: am schichtende nach mehreren vorangegangenen schichten	50 µg/g Kreatinin	

8.1.2 Sampling methods

Product name	Test	Number
Aluminium	NIOSH	7013
Aluminum (Al)	NIOSH	7302
Aluminum (Al)	NIOSH	7304

Product name	Test	Number
Aluminum (Al)	NIOSH	7306
Aluminum (Al)	NIOSH	8310
Aluminum (Elements)	NIOSH	7300
Aluminum (Elements, aqua regia ashing)	NIOSH	7301
Aluminum (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303
Aluminum	OSHA	ID121
Calciumdihydroxide	NIOSH	7020
Copper (Cu)	NIOSH	7302
Copper (Cu)	NIOSH	7304
Copper (Cu)	NIOSH	7306
Copper (Cu)	NIOSH	8005
Copper (Cu)	NIOSH	8310
Copper (Elements on wipes)	NIOSH	9102
Copper (Elements)	NIOSH	7300
Copper (Elements, aqua regia ashing)	NIOSH	7301
Copper (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303
Copper Dust and fume	NIOSH	7029
Copper	OSHA	1006
Copper	OSHA	ID 105
Copper	OSHA	ID 121
Copper	OSHA	ID 125G
Copper	OSHA	ID 206
Oil Mist (Mineral)	NIOSH	5026
Zinc (Elements)	NIOSH	7300
Zinc (Zn)	NIOSH	7302
Zinc (Zn)	NIOSH	7304
Zinc Oxide	NIOSH	7030
Zinc Oxide	NIOSH	7502
Zinc Oxide	OSHA	ID 121
Zinc Oxide	OSHA	ID 143

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

DNEL/DMEL - Workers

naphtha (petroleum), hydrotreated light

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	1286.4 mg/m³	
	Long-term local effects inhalation	837.5 mg/m³	
	Acute local effects inhalation	1066.67 mg/m³	

calcium dihydroxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	1 mg/m³	
	Acute local effects inhalation	4 mg/m³	

copper

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	137 mg/kg bw/day	
	Acute systemic effects dermal	273 mg/m³	

aluminium powder

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	3.72 mg/m³	
	Long-term local effects inhalation	3.72 mg/m³	

zinc oxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	5 mg/m³	
	Long-term local effects inhalation	0.5 mg/m³	
	Long-term systemic effects dermal	83 mg/kg bw/day	

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	35.26 mg/m³	
	Long-term systemic effects dermal	25 mg/kg bw/day	
	Acute local effects dermal	1.04 mg/cm²	

DNEL/DMEL - General population

naphtha (petroleum), hydrotreated light

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	1152 mg/m³	
	Long-term local effects inhalation	178.57 mg/m³	
	Acute local effects inhalation	640 mg/m³	

calcium dihydroxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	1 mg/m³	
	Acute local effects inhalation	4 mg/m³	

copper

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	137 mg/kg bw/day	
	Acute systemic effects dermal	273 mg/kg bw/day	
	Long-term systemic effects oral	0.041 mg/kg bw/day	

aluminium powder

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects oral	7.9 mg/kg bw/day	

zinc oxide

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.5 mg/m³	
	Long-term systemic effects dermal	83 mg/kg bw/day	
	Long-term systemic effects oral	0.83 mg/kg bw/day	

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	8.7 mg/m³	
	Long-term systemic effects dermal	12.5 mg/kg bw/day	
	Acute local effects dermal	0.518 mg/cm²	
	Long-term systemic effects oral	2.5 mg/kg bw/day	

PNEC

calcium dihydroxide

Compartments	Value	Remark
Fresh water	0.49 mg/l	
Fresh water (intermittent releases)	0.49 mg/l	
Marine water	0.32 mg/l	
STP	3 mg/l	
Soil	1080 mg/kg soil dw	

copper

Compartments	Value	Remark
Fresh water	7.8 µg/l	
Salt water	5.2 µg/l	
STP	230 µg/l	
Fresh water sediment	87 mg/kg sediment dw	
Marine water sediment	676 mg/kg sediment dw	
Soil	65 mg/kg soil dw	

aluminium powder

Compartments	Value	Remark
Fresh water	74.9 µg/l	
STP	20 mg/l	

zinc oxide

Compartments	Value	Remark
Fresh water	20.6 µg/l	
Marine water	6.1 µg/l	
STP	100 µg/l	
Fresh water sediment	117.8 mg/kg sediment dw	
Marine water sediment	56.5 mg/kg sediment dw	
Soil	35.6 mg/kg soil dw	

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

Compartments	Value	Remark
Fresh water	0.1 mg/l	
Fresh water (intermittent releases)	1 mg/l	
Marine water	0.1 mg/l	
STP	1000 mg/l	
Fresh water sediment	45211 mg/kg sediment dw	
Marine water sediment	45211 mg/kg sediment dw	
Soil	36739.74 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

a) Respiratory protection:
Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:
Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 60 minutes		Class 3	
butyl rubber	> 240 minutes		Class 5	
viton	> 240 minutes		Class 5	

c) Eye protection:
Protective goggles (EN 166).

d) Skin protection:
Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:
See sections 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Aerosol
Odour	Solvent-like odour
Odour threshold	No data available in the literature
Colour	Grey
Particle size	Not applicable (aerosol)
Explosion limits	0.6 - … vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	Not applicable (aerosol)
Kinematic viscosity	Not applicable (aerosol)
Melting point	Not applicable (aerosol)
Boiling point	Not applicable (aerosol)
Relative vapour density	> 1
Vapour pressure	3500 hPa ; 20 °C ; Propellant
Solubility	Water ; insoluble
Relative density	0.72 ; 20 °C ; Liquid
Absolute density	720 kg/m³ ; 20 °C ; Liquid
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
pH	Not applicable (non-soluble in water)

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Precautionary measures
Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials
(strong) acids, (strong) bases, oxidizing agents.

10.6. Hazardous decomposition products
Upon combustion: CO and CO2 are formed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Test results

Acute toxicity

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5000 mg/kg bw		Rat (male / female)	Read-across	
Dermal	LD50	Equivalent to OECD 402	> 2000 mg/kg bw	24 h	Rabbit (male / female)	Read-across	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 5610 mg/m³ air	4 h	Rat (male / female)	Read-across	

calcium dihydroxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 425	> 2000 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	> 2500 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (dust)	LC50	OECD 436	> 6.04 mg/l	4 h	Rat (male / female)	Experimental value	

copper

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	482 mg/kg bw		Rat (male / female)	Experimental value	

aluminium powder

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 15900 mg/kg bw		Rat (male / female)	Read-across	
Dermal						Data waiving	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 0.89 mg/l air	4 h	Rat (male)	Experimental value	

zinc oxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5000 mg/kg		Rat (male / female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (dust)	LC50	Equivalent to OECD 403	> 5.7 mg/l	4 h	Rat (male / female)	Experimental value	

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		10000 mg/kg bw - 20000 mg/kg bw		Rat (male)	Read-across	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male / female)	Read-across	
Inhalation (aerosol)	LC50	EPA OPP 81-3	> 1.9 mg/l	4 h	Rat (male / female)	Read-across	(maximum achievable concentration)

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Classification is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Irritating	OECD 404	4 h	1; 24; 48; 72; 168 hours	Rabbit	Read-across	
Inhalation (vapours)	Not irritating		1 h		Human	Experimental value	

calcium dihydroxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	OECD 405	1 h	1; 24; 48; 72 hours	Rabbit	Experimental value	
Skin	Irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Inhalation	Irritating; STOT SE cat.3					Literature study	

aluminium powder

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Draize Test		24; 48; 72 hours	Rabbit	Read-across	
Skin	Not irritating	Equivalent to OECD 404	24 h	24; 48; 72 hours	Rabbit	Read-across	

zinc oxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405	24 h	24; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	24 h	24 hours	Rabbit	Experimental value	
Not applicable (in vitro test)	Not corrosive	OECD 431	3 minutes	24; 72 hours	Reconstructed human epidermis	Experimental value	

Conclusion

Causes skin irritation.

Causes serious eye irritation.

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406	6 h	24; 48 hours	Guinea pig (male)	Experimental value	

calcium dihydroxide

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 429			Mouse (female)	Experimental value	

aluminium powder

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing				Guinea pig (male)	Read-across	
Intratracheal instillation	Not sensitizing				Mouse (male)	Read-across	

zinc oxide

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	
Skin	Not sensitizing	Human observation	2 days (continuous)	72 hours	Human	Experimental value	

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 429		24; 48 hours	Mouse (female)	Experimental value	

Conclusion

Not classified as sensitizing for skin
Not classified as sensitizing for inhalation

Specific target organ toxicity

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOEL	Subacute toxicity test	< 500 mg/kg bw/day	Kidney	No effect	4 weeks (5 days / week)	Rat (male)	Experimental value
Dermal	NOAEL local effects	Equivalent to OECD 410	< 200 mg/kg bw/day	Skin	No effect	4 weeks (6h / day, 3 days / week)	Rabbit (male / female)	Experimental value
Inhalation (vapours)	LOAEL		4320 mg/m³ air	Central nervous system	neurotoxic effects	1 h	Human (male / female)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	1402 mg/m³ air	General	No effect	107 weeks (6h / day, 5 days / week) - 109 weeks (6h / day, 5 days / week)	Rat (male / female)	Read-across
Inhalation			STOT SE cat.3		neurotoxic effects			Annex VI

calcium dihydroxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1000 mg/kg bw/day		No effect		Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (dust)	NOAEC	OECD 412	0.107 mg/l		No effect	2 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

aluminium powder

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1000 mg/kg bw/day		No effect	28 day(s) - 53 day(s)	Rat (male / female)	Read-across
Inhalation (dust)	LOAEC	Equivalent to OECD 413	50 mg/m³ air	Lungs	Lung tissue affection/degeneration	25 weeks (6h / day, 5 days / week) - 52 weeks (6h / day, 5 days / week)	Rat	Experimental value

zinc oxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOEL	OECD 408	3000 ppm		No effect	13 weeks (daily)	Rat (male / female)	Read-across
Dermal	LOAEL	OECD 410	75 mg/kg bw/day		Systemic effects	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (aerosol)	NOAEL	OECD 413	1.5 mg/m³ air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male)	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

calcium dihydroxide

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S. typhimurium and E. coli)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes		Experimental value	

aluminium powder

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Read-across	
Positive without metabolic activation	Equivalent to OECD 473	Human lymphocytes		Read-across	

zinc oxide

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Ambiguous	OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value	

Mutagenicity (in vivo)

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 475	5 day(s)	Rat (male)		Experimental value

aluminium powder

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474	2 dose(s)/24-hour interval	Rat (male / female)	Bone marrow	Read-across

zinc oxide

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)	OECD 474		Mouse (male)	Bone marrow	Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	NOAEL	Equivalent to OECD 451	0.05 ml	102 weeks (3 times / week)	Mouse (male)	No carcinogenic effect		Experimental value

calcium dihydroxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	2150 mg/kg bw/day - 2280 mg/kg bw/day	104 week(s)	Rat (male / female)	No carcinogenic effect		Read-across

aluminium powder

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (dust)	LOAEC	Equivalent to OECD 413	15 mg/m³ air	52 weeks (6h / day, 5 days / week)	Rat	Lung tissue affection/degeneration	Lungs	Experimental value

zinc oxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	> 22000 mg/l	52 week(s)	Mouse (male / female)	No carcinogenic effect		Read-across

Conclusion

Not classified for carcinogenicity

Not classified for carcinogenicity

Reproductive toxicity

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	23900 mg/m³ air	14 days (6h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity	NOAEL	Equivalent to OECD 414	23900 mg/m³ air	14 day(s)	Rat	No effect		Experimental value
Effects on fertility	NOAEC (P/F1)	Equivalent to OECD 416	≥ 20000 mg/m³ air	10 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Experimental value

calcium dihydroxide

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	≥ 440 mg/kg bw/day	10 days (gestation, daily)	Mouse	No effect		Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	≥ 440 mg/kg bw/day	10 days (gestation, daily)	Mouse	No effect		Read-across
Effects on fertility (Oral (stomach tube))	NOEL	OECD 422	1000 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

aluminium powder

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	266 mg/kg bw/day	10 day(s)	Rat	No effect	Foetus	Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	266 mg/kg bw/day	10 day(s)	Rat	No effect		Read-across
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 422	1000 mg/kg bw/day	28 day(s) - 53 day (s)	Rat (male / female)	No effect		Read-across

zinc oxide

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (aerosol))	NOAEC	OECD 414	7.5 mg/kg bw/day	14 days (6h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Inhalation (aerosol))	NOAEC	OECD 414	1.5 mg/kg bw/day	14 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	LOAEL (P)	Equivalent to OECD 416	7.5 mg/kg bw/day	22 weeks (daily)	Rat (male / female)	Reproductive performance		Read-across

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Chronic effects from short and long-term exposure

NOVALUBE AEROSOL 100ml

Skin rash/inflammation.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

NOVALUBE AEROSOL 100ml

No (test)data on the mixture available

Classification is based on the relevant ingredients

naphtha (petroleum), hydrotreated light

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	10 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	4.5 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	3.1 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish	NOELR	OECD 204	2.6 mg/l	14 day(s)	Pimephales promelas	Semi-static system	Fresh water	Experimental value; Reproduction
Long-term toxicity aquatic crustacea	NOELR	OECD 211	2.6 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction

calcium dihydroxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	50.6 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	OECD 202	49.1 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Estimated value
Toxicity algae and other aquatic plants	ErC50	OECD 201	184.57 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD 201	48 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC		32 mg/l	14 day(s)	Crangon sp.	Semi-static system	Salt water	Experimental value; Growth
Toxicity aquatic micro-organisms	EC50	OECD 209	300.4 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Respiration

copper

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		68 µg/l - 94 µg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Weight of evidence
Long-term toxicity fish	NOEC		11.4 µg/l	45 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value

aluminium powder

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	EC0		> 100 mg/l	96 h	Salmo trutta			Literature study; Nominal concentration
Toxicity algae and other aquatic plants	EC0		> 100 mg/l	72 h	Selenastrum capricornutum			Literature study; Nominal concentration

zinc oxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		1.55 mg/l	96 h	Danio rerio	Static system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	OECD 202	1 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Zinc ion
Toxicity algae and other aquatic plants	IC50	OECD 201	0.136 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	0.024 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	OECD 215	0.039 mg/l - 0.974 mg/l	30 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Read-across; Lethal
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.04 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Read-across; Reproduction
Toxicity aquatic micro-organisms	EC50	OECD 209	> 1000 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Respiration

Conclusion

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

naphtha (petroleum), hydrotreated light

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	77.05 %; Oxygen consumption	28 day(s)	Experimental value

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	8 %	28 day(s)	Read-across

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

NOVALUBE AEROSOL 100ml

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

naphtha (petroleum), hydrotreated light

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		12.6 - 223.87; Calculated value		Pimephales promelas	Read-across

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		2.4 - 5.7	23 °C	Experimental value
		4.66		Experimental value

calcium dihydroxide

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

copper

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

aluminium powder

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (inorganic)			

zinc oxide

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		78 - 2060	14 day(s)	Oncorhynchus mykiss	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		1.53		Estimated value

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		70.8 l/kg			Calculated value

Log Kow

Method	Remark	Value	Temperature	Value determination
		> 6.91		Estimated value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

naphtha (petroleum), hydrotreated light

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	2.380	Calculated value

zinc oxide

(log) Koc

Parameter	Method	Value	Value determination
log Koc		2.2	Literature study

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

(log) Koc

Parameter	Method	Value	Value determination
log Koc		15.75	QSAR

Conclusion

Contains component(s) that adsorb(s) into the soil
Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

NOVALUBE AEROSOL 100ml

Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

naphtha (petroleum), hydrotreated light

Groundwater

Groundwater pollutant

calcium dihydroxide

Water ecotoxicity pH

pH shift

zinc oxide

Groundwater

Groundwater pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
13 02 05* (waste engine, gear and lubricating oils: mineral-based non-chlorinated engine, gear and lubricating oils). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Specific treatment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	aerosols

14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	aerosols

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	aerosols

14.3. Transport hazard class(es)

Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190

Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	aerosols

14.3. Transport hazard class(es)

Class	2.1

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
Special provisions	277
Special provisions	327
Special provisions	344
Special provisions	381
Special provisions	63
Special provisions	959
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

14.7. Maritime transport in bulk according to IMO instruments

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number

UN number	1950

14.2. UN proper shipping name

Proper shipping name	aerosols, flammable

14.3. Transport hazard class(es)

Class	2.1

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	A145
Special provisions	A167
Special provisions	A802

Passenger and cargo transport

Limited quantities: maximum net quantity per packaging	30 kg G

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European legislation:

Explosives precursors

Due to the presence of one or more components in this mixture, acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

VOC content Directive 2010/75/EU

VOC content	Remark
51 % - 91 %	

Directive 2012/18/EU (Seveso III)

Threshold values under normal circumstances

Substance or category	Low tier (tonnes)	Top tier (tonnes)	Group	For this substance or mixture the summation rule has to be applied for:
P3b FLAMMABLE AEROSOLS	5000 (net)	50000 (net)	None	Flammability

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· naphtha (petroleum), hydrotreated light · benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
· naphtha (petroleum), hydrotreated light · aluminium powder	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs. 2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: “For professional users only”. 3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC. 4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.
· naphtha (petroleum), hydrotreated light	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 — serious eye damage category 1 or eye irritant category 2 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex. The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

	mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.	
· copper	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 — serious eye damage category 1 or eye irritant category 2 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex. The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

National legislation Belgium

NOVALUBE AEROSOL 100ml

No data available

National legislation The Netherlands

NOVALUBE AEROSOL 100ml

Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)

National legislation France

NOVALUBE AEROSOL 100ml

No data available

National legislation Germany

NOVALUBE AEROSOL 100ml

Lagerklasse (TRGS510)	2B: Aerosolpackungen und Feuerzeuge
WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

naphtha (petroleum), hydrotreated light

TA-Luft	5.2.5/I

calcium dihydroxide

TA-Luft	5.2.1
TRGS900 - Risiko der Fruchtschädigung	Calciumdihydroxid; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

aluminium powder

TA-Luft	5.2.1

zinc oxide

TA-Luft	5.2.1

benzenesulphonic acid, di-C10-14 alkyl derivates, calciumsalts

TA-Luft	5.2.5/I

National legislation Austria

NOVALUBE AEROSOL 100ml

No data available

National legislation United Kingdom

NOVALUBE AEROSOL 100ml

No data available

Other relevant data

NOVALUBE AEROSOL 100ml

No data available

naphtha (petroleum), hydrotreated light

TLV - Carcinogen	Mineral oil, excluding metal working fluids: Pure, highly and severely refined; A4

aluminium powder

TLV - Carcinogen	Aluminium metal and insoluble compounds; A4

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly 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.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
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.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains a sensitising substance. May produce an allergic reaction.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative