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

1.1 Product identifier

Waxoyl 120-4 Plus Aerosol
UFI: KM0M-YX2M-910M-38H2

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

1.2.1 Relevant uses

Corrosion protection

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

WAXOYL AG
Seewenweg 5
4153 Reinach / SWITZERLAND
Phone +41-61-28177 94
Fax +41-61-28177 85
Homepage www.waxoyl.com
E-mail info@waxoyl.ch

Address enquiries to

Technical information info@waxoyl.ch

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body Call NHS 111 or a doctor

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
STOT SE 3: H336 May cause drowsiness or dizziness.
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways.
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms





Signal word DANGER

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

Hazard statements
H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary 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.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/national regulation.

Special labelling
EUH066 Repeated exposure may cause skin dryness or cracking.

Contains: Sulfonic acids, petroleum, calcium salts. EUH208 May produce an allergic reaction.

2004/42/CE < 840 g/L II B e Special finishes (max. 840 g/l)

2.3 Other hazards

Physico-chemical hazards Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

Human health dangers The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Environmental hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other hazards Because of the high vapour pressure, containers are liable to burst if temperature rises.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
25 - < 50	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
	CAS: 64742-48-9, EINECS/ELINCS: 919-857-5, Reg-No.: 01-2119463258-33-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - STOT SE 3: H336 - EUH066
10 - < 25	Propane
	CAS: 74-98-6, EINECS/ELINCS: 200-827-9, EU-INDEX: 601-003-00-5, Reg-No.: 01-2119486944-21-XXXX
	GHS/CLP: Flam. Gas 1A: H220 - Press. Gas: H280
10 - < 25	Butane
	CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
	GHS/CLP: Flam. Gas 1A: H220 - Press. Gas: H280
5 - < 10	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
	EINECS/ELINCS: 927-241-2, Reg-No.: 01-2119471843-32-XXXX
	GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - STOT SE 3: H336 - Aquatic Chronic 3: H412 - EUH066
5 - < 10	Pentane
	CAS: 109-66-0, EINECS/ELINCS: 203-692-4, EU-INDEX: 601-006-00-1, Reg-No.: 01-2119459286-30-XXXX
	GHS/CLP: Flam. Liq. 2: H225 - Asp. Tox. 1: H304 - STOT SE 3: H336 - Aquatic Chronic 2: H411 - EUH066
5 - < 10	iso-Butane
	CAS: 75-28-5, EINECS/ELINCS: 200-857-2, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119485395-27-XXXX
	GHS/CLP: Flam. Gas 1A: H220 - Press. Gas: H280
1 - < 3	Sulfonic acids, petroleum, calcium salts
	CAS: 61789-86-4, EINECS/ELINCS: 263-093-9, Reg-No.: 01-2119488992-18-XXXX
	GHS/CLP: Skin Sens. 1B: H317
	SCL [%]: >= 10: Skin Sens. 1B: H317

Comment on component parts For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Take off contaminated clothing and wash before reuse.

Inhalation Remove person to fresh air and keep comfortable for breathing.
In the event of symptoms seek medical treatment.

Skin contact In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

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.

Ingestion Do not induce vomiting.
Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Drowsiness
Vertigo
Irritant effects
Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam.
Dry powder.
Water spray jet.
Carbon dioxide.

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Bursting aerosols can be forcibly projected from a fire.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.
Cool containers at risk with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use personal protective equipment.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Dispose of absorbed material in accordance within the regulations.
Take up residues with absorbent material (e.g. sand).

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Provide suitable vacuuming at the processing machines and in the processing area.
Avoid spilling or spraying in enclosed areas.

Keep away from all sources of ignition - Refrain from smoking.
Vapours can form an explosive mixture with air.

Do not eat, drink, smoke or take drugs at work.
Take off contaminated clothing and wash before reuse.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Provide solvent-resistant and impermeable floor.
Prevent penetration into the ground.

Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Pentane
CAS: 109-66-0, EINECS/ELINCS: 203-692-4, EU-INDEX: 601-006-00-1, Reg-No.: 01-2119459286-30-XXXX
Long-term exposure: 600 ppm, 1800 mg/m³
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
EINECS/ELINCS: 927-241-2, Reg-No.: 01-2119471843-32-XXXX
Long-term exposure: 226 ppm, 1200 mg/m³
iso-Butane
CAS: 75-28-5, EINECS/ELINCS: 200-857-2, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119485395-27-XXXX
Long-term exposure: 600 ppm, 1450 mg/m³, (Butane)
Short-term exposure (15-minute): 750 ppm, 1810 mg/m³
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics
CAS: 64742-48-9, EINECS/ELINCS: 919-857-5, Reg-No.: 01-2119463258-33-XXXX
Long-term exposure: 800 mg/m³
Butane
CAS: 106-97-8, EINECS/ELINCS: 203-448-7, EU-INDEX: 601-004-00-0, Reg-No.: 01-2119474691-32-XXXX
Long-term exposure: 600 ppm, 1450 mg/m³
Short-term exposure (15-minute): 750 ppm, 1810 mg/m³

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

Substance / EC LIMIT VALUES
Pentane
CAS: 109-66-0, EINECS/ELINCS: 203-692-4, EU-INDEX: 601-006-00-1, Reg-No.: 01-2119459286-30-XXXX
Eight hours: 1000 ppm, 3000 mg/m³

DNEL

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
Industrial, dermal, Long-term - systemic effects, 77 mg/kg bw/day
Industrial, inhalative, Long-term - systemic effects, 871 mg/m³
general population, inhalative, Long-term - systemic effects, 185 mg/m³
general population, dermal, Long-term - systemic effects, 46 mg/kg bw/day
general population, oral, Long-term - systemic effects, 46 mg/kg bw/day
iso-Butane, CAS: 75-28-5
There are no DNEL values established for the substance.
Propane, CAS: 74-98-6
There are no DNEL values established for the substance.
Butane, CAS: 106-97-8
There are no DNEL values established for the substance.
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Industrial, inhalative, Long-term - systemic effects, 871 mg/m³
Industrial, dermal, Long-term - systemic effects, 77 mg/kg bw/day
general population, oral, Long-term - systemic effects, 46 mg/kg bw/day
general population, dermal, Long-term - systemic effects, 46 mg/kg bw/day

general population, inhalative, Long-term - systemic effects, 185 mg/m³
Pentane, CAS: 109-66-0
Industrial, inhalative, Long-term - systemic effects, 3000 mg/m³
Industrial, dermal, Long-term - systemic effects, 432 mg/kg bw/day
general population, oral, Long-term - systemic effects, 214 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 643 mg/m³
general population, dermal, Long-term - systemic effects, 214 mg/kg bw/day
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
Industrial, inhalative, Long-term - systemic effects, 11.75 mg/m³
Industrial, dermal, Long-term - systemic effects, 3.33 mg/kg bw/d
Industrial, dermal, Long-term - local effects, 1.03 mg/cm²
general population, inhalative, Long-term - systemic effects, 2.9 mg/m³
general population, dermal, Long-term - systemic effects, 1.667 mg/kg bw/day
general population, dermal, Long-term - local effects, 0.513 mg/cm²
general population, oral, Long-term - systemic effects, 0.833 mg/kg bw/day

PNEC

Substance
iso-Butane, CAS: 75-28-5
There are no PNEC values established for the substance.
Propane, CAS: 74-98-6
There are no PNEC values established for the substance.
Butane, CAS: 106-97-8
There are no PNEC values established for the substance.
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
There are no PNEC values established for the substance.
Pentane, CAS: 109-66-0
There are no PNEC values established for the substance.
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
oral (food), 16.667 mg/kg food
soil, 271 000 000 mg/kg dw
sediment (seawater), 226 000 000 mg/kg dw
sediment (freshwater), 226 000 000 mg/kg dw
sewage treatment plants (STP), 1000 mg/l (AF=10)
seawater, 1 mg/l (AF=10000)
freshwater, 1 mg/l (AF=1000)

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	0.4mm Butyl rubber, >120 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Do not breathe vapour/spray. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter AX (DIN EN 14387).
Thermal hazards	none
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	gas
Form	aerosol
Color	whitish
Odor	characteristic
Odour threshold	not relevant
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	-44.5 (propellant)
Flash point [°C]	-97 (propellant)
Flammability	not applicable
Lower explosion limit	ca. 0.6 Vol.%
Upper explosion limit	ca. 10.9 Vol.%
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	830 (20°C)
Density [g/cm³]	0.72 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	virtually insoluble
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	not applicable
Auto-ignition temperature [°C]	> 400
Decomposition temperature [°C]	not applicable
Particle characteristics	not applicable

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

Risk of bursting.
Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Oxidizing agent

10.6 Hazardous decomposition products

Flammable gases/vapours.

SECTION 11: Toxicological information

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

Acute oral toxicity

Product
ATE-mix, oral, > 2000 mg/kg

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, oral, Rat, > 5000 mg/kg
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
LD50, oral, Rat, > 15000 mg/kg (OECD 401)
Pentane, CAS: 109-66-0
LD50, oral, Rat, >2000 mg/kg bw
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
LD50, oral, Rat, >5000 mg/kg bw

Acute dermal toxicity

Product
ATE-mix, dermal, > 2000 mg/kg

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LD50, dermal, Rabbit, > 3160 mg/kg
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
LD50, dermal, Rabbit, > 3160 mg/kg (OECD 402)
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
LD50, dermal, Rabbit, > 5000 mg/kg bw >5000 mg/kg bw

Acute inhalational toxicity

Product
ATE-mix, inhalation (vapour), > 20 mg/l 4h

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
LC50, inhalative, Rat, > 5000 mg/m³/8h
iso-Butane, CAS: 75-28-5
LC50, inhalative, mouse, 1237 mg/l (2h) (Lit.)
Propane, CAS: 74-98-6
LC50, inhalative, Rat, > 1443 mg/l (15 min) (Lit.)
Butane, CAS: 106-97-8
LC50, inhalative, Rat, 1443 mg/L air (15min)
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
LC50, inhalative, Rat, > 6100 mg/m³ (OECD 403)
Pentane, CAS: 109-66-0
LC50, inhalative, Rat, 25.3 mg/L, 4h
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
LC50, inhalative, Rat, >1.9 mg/L air

Serious eye damage/irritation

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
Eye, non-irritating
iso-Butane, CAS: 75-28-5
Eye, non-irritating
Propane, CAS: 74-98-6
Eye, non-irritating
Butane, CAS: 106-97-8
Eye, non-irritating
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Eye, non-irritating
Pentane, CAS: 109-66-0
Eye, non-irritating
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
Eye, no adverse effect observed

Skin corrosion/irritation

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
dermal, non-irritating
iso-Butane, CAS: 75-28-5
dermal, non-irritating
Propane, CAS: 74-98-6
dermal, non-irritating
Butane, CAS: 106-97-8
dermal, non-irritating
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
dermal, non-irritating
Pentane, CAS: 109-66-0
dermal, non-irritating
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
dermal, no adverse effect observed

Respiratory or skin sensitisation

No classification due to substance-specific concentration limits.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
dermal, non-sensitizing
iso-Butane, CAS: 75-28-5
inhalative, non-sensitizing
dermal, non-sensitizing
Propane, CAS: 74-98-6
inhalative, non-sensitizing

dermal, non-sensitizing
Butane, CAS: 106-97-8
dermal, non-sensitizing
inhalative, non-sensitizing
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
dermal, non-sensitizing
Pentane, CAS: 109-66-0
dermal, non-sensitizing
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
dermal, sensitising

Specific target organ toxicity — single exposure

Vapours may cause drowsiness and dizziness.
Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Calculation method

Substance
iso-Butane, CAS: 75-28-5
inhalative, non-irritating
Propane, CAS: 74-98-6
inhalative, non-irritating
Butane, CAS: 106-97-8
inhalative, non-irritating

Specific target organ toxicity — repeated exposure

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
NOAEL, inhalative, Rat, 6000 mg/m³, negativ
NOAEL, oral, Rat, 500 mg/kg bw/day, negativ
iso-Butane, CAS: 75-28-5
NOAEC, inhalative, Rat, 4437 mg/m³, The effects observed are not sufficient for classification.
Propane, CAS: 74-98-6
NOAEC, inhalative, Rat, 4437 mg/m³, The effects observed are not sufficient for classification.
Butane, CAS: 106-97-8
NOAEC, inhalative, Rat, 4437 mg/m³
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
NOAEL, oral, Rat, 500 mg/kg bw/day, no adverse effect observed
NOAEC, inhalative, Rat, 10400 mg/m³, no adverse effect observed
Pentane, CAS: 109-66-0
NOAEC, inhalative, Rat, 20 000 mg/m³ (subchronic), no adverse effect observed
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
NOAEL, dermal, Rat, 1000 mg/kg bw/day, no adverse effect observed
NOAEL, oral, Rat, 500 mg/kg bw/day, adverse effect observed
NOAEC, inhalative, Rat, 881.58 mg/m³, no adverse effect observed

Mutagenicity

Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Substance

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
in vivo, negativ
in vitro, negativ
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
in vivo, negativ
in vitro, negativ
Pentane, CAS: 109-66-0
in vivo, negativ
in vitro, negativ

Reproduction toxicity Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

- Fertility

Substance
Pentane, CAS: 109-66-0
NOAEL, oral, Rat, 1000 mg/kg bw/day (subacute), no adverse effect observed, Effect on developmental toxicity,
NOAEL, oral, Rat, 1000 mg/kg bw/day (subacute), no adverse effect observed, Effect on fertility,
NOAEC, inhalative, Rat, 24 080 mg/m³ (subacute), no adverse effect observed, Effect on developmental toxicity,
NOAEC, inhalative, Rat, 20 000 mg/m³ (subacute), no adverse effect observed, Effect on fertility,

- Development

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
NOAEC, inhalative, Rat, 5220 mg/m³
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
NOAEC, inhalative, Rat, 220 mg/m³, no adverse effect observed
Pentane, CAS: 109-66-0
NOAEL, oral, Rat, 1000 mg/kg bw/day (subacute), no adverse effect observed, Effect on developmental toxicity,
NOAEL, oral, Rat, 1000 mg/kg bw/day (subacute), no adverse effect observed, Effect on fertility,
NOAEC, inhalative, Rat, 24 080 mg/m³ (subacute), no adverse effect observed, Effect on developmental toxicity,
NOAEC, inhalative, Rat, 20 000 mg/m³ (subacute), no adverse effect observed, Effect on fertility,

Carcinogenicity Does not contain a relevant substance that meets the classification criteria.
Based on the available information, the classification criteria are not fulfilled.
Toxicological data of complete product are not available.

Aspiration hazard Based on the available information, the classification criteria are fulfilled.

General remarks

The determination of properties hazardous to health does not take the propellant or carrier material into account.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties Contains no ingredients with endocrine-disrupting properties.

11.2.2 Other information

SECTION 12: Ecological information

12.1 Toxicity

Substance
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics, CAS: 64742-48-9
EL50, (72h), Algae, > 1000 mg/l
NOELR, (72h), Algae, 100 mg/l
LL50, (96h), Oncorhynchus mykiss, > 1000 mg/l
LL50, (48h), Daphnia magna, >1000 mg/l
iso-Butane, CAS: 75-28-5
LC50, (96h), fish, 7.71 - 19.37 mg/L
Butane, CAS: 106-97-8
LC50, (48h), Invertebrates, 14.22 - 69.43 mg/L
LC50, (96h), fish, 24.11 - 147.54 mg/L
EC50, (96h), Algae, 7.71 - 19.37 mg/L
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
EL50, (48h), Daphnia magna, 22 - 46 mg/l
EL50, (72h), Pseudokirchneriella subcapitata, > 1000 mg/l
NOELR, (72h), Pseudokirchneriella subcapitata, < 1 mg/l
LL50, (96h), Oncorhynchus mykiss, 10 - 30 mg/l
Pentane, CAS: 109-66-0
EL50, (48h), Invertebrates, 48.11 mg/L
EL50, (72h), Algae, 20.33 mg/L
LL50, (96h), fish, 27.55 mg/L
Sulfonic acids, petroleum, calcium salts, CAS: 61789-86-4
NOEC, (72h), Pseudokirchneriella subcapitata, 1000 mg/l
LL50, (96h), fish, > 10 000 mg/l
EC0, (48h), Daphnia magna, >1000 mg/l

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

For recycling, consult manufacturer.
Dispose of as hazardous waste.

Waste no. (recommended) 160504* gases in pressure containers (including halons) containing dangerous substances
080111*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances
150104

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID	1950
Inland navigation (ADN)	1950
Marine transport in accordance with IMDG	1950
Air transport in accordance with IATA	1950

14.2 UN proper shipping name

Transport by land according to ADR/RID	Aerosols
- Classification Code	5F
- Label	
- ADR LQ	1 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)
Inland navigation (ADN)	Aerosols
- Classification Code	5F
- Label	
Marine transport in accordance with IMDG	Aerosols
- EMS	F-D, S-U
- Label	
- IMDG LQ	1 l
Air transport in accordance with IATA	Aerosols, flammable
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	2
Inland navigation (ADN)	2
Marine transport in accordance with IMDG	2.1
Air transport in accordance with IATA	2.1

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains ≥ 0.1% of substances with the following restrictions. 40, 75 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is not subject to any restrictions.
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	75,4 % (540 g/L)

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
H225 Highly flammable liquid and vapour.
H412 Harmful to aquatic life with long lasting effects.

H280 Contains gas under pressure; may explode if heated.
H220 Extremely flammable gas.
EUH066 Repeated exposure may cause skin dryness or cracking.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H226 Flammable liquid and vapour.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Aerosol 1: H222 Extremely flammable aerosol. (Bridging principle "Aerosols") H229 Pressurised container: May burst if heated. (Bridging principle "Aerosols")
STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)
Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (Bridging principle "Aerosols")
Aquatic Chronic 3: H412 Harmful to aquatic life with long lasting effects. (Calculation method)

Modified position

SECTION 2 been added: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 2 been added: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 2 been added: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 4 been added: Do not induce vomiting.

SECTION 8 been added: Short term: filter apparatus, filter AX (DIN EN 14387).

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