SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

NOVALUBE AEROSOL 400ml

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

1.1. Product identifier

Product name : NOVALUBE AEROSOL 400ml
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@tec7.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.
STOT SE	category 3	H336: May cause drowsiness or dizziness.
Aquatic Chronic	category 2	H411: Toxic to aquatic life with long lasting effects.

2.2. Label elements

Contains: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane; hydrocarbons, C6, isoalkanes, < 5% n-hexane.

Signal word Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic 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.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

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 List No	Conc. (C)	Classification according to CLP	Note	Remark
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane 01-2119475514-35	921-024-6	10%≤C<20%	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(10)	Constituent
propane 01-2119486944-21	74-98-6 200-827-9	1%≤C<10%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
hydrocarbons, C6, isoalkanes, < 5% n-hexane 01-2119484651-34	931-254-9	2.5%≤C<10%	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(10)	Constituent
copper flakes (coated with aliphatic acid) 01-2119480154-42	7440-50-8 231-159-6	1%≤C<2.5%	Acute Tox. 3; H331 Acute Tox. 4; H302 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)(9)	Constituent
amines, N-tallow alkyltrimethylenedi-, oleates	61791-53-5 263-186-4	0.1% ≤C<0.25%	STOT RE 2; H373 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(9)	Constituent
isobutane 01-2119485395-27	75-28-5 200-857-2	30%≤C<50%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Propellant
butane 01-2119474691-32	106-97-8 203-448-7	10%≤C<20%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Propellant
graphite	7782-42-5 231-955-3	1%≤C<10%		(2)	Constituent

(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(9) M-factor, see heading 16
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006
(21) 1,3-butadiene <0.1%
Note: numbers 9xx-xxx-x are provisional list numbers assigned by Echa pending an official EC inventory number

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Nausea. Headache. Respiratory difficulties. Vomiting. Disturbances of consciousness. Central nervous system depression. Feeling of weakness. Narcosis. Coordination disorders. Accelerated heart action. Rapid respiration.

After skin contact:

Tingling/irritation of the skin.

After eye contact:

No effects known.

After ingestion:

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: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher.

5.1.2 Unsuitable extinguishing media:

Small fire: Quick-acting CO2 extinguisher, Water (water can be used to control jet flame), Foam.

Major fire: Water (water can be used to control jet flame), Foam.

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. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

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 heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.

Suitable protective clothing

See heading 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 heading 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. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Store in a cool area. Keep out of direct sunlight. Keep container in a well-ventilated place. Fireproof storeroom. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, ignition sources, 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.

Belgium

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
Graphite (excepté fibres) (fraction alvéolaire)	Time-weighted average exposure limit 8 h	2 mg/m³
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3)	Time-weighted average exposure limit 8 h	1000 ppm
	Short time value	980 ppm
	Short time value	2370 mg/m³

The Netherlands

Koper en anorganische koperverbindingen (inhaleerbaar)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.1 mg/m³

France

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
Graphite, fraction alvéolaire	Time-weighted average exposure limit 8 h (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

Germany

Butan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m³
Isobutan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 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

UK

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
Copper fume	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.2 mg/m³
Graphite inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Graphite respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³

USA (TLV-ACGIH)

Butane, all isomers	Short time value (TLV - Adopted Value)	1000 ppm
Copper fume	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.2 mg/m³

Copper dust & mists, as Cu	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m³
Graphite (all forms except graphite fibers)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m³ (R)

(R): Respirable fraction

b) National biological limit values

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

8.1.2 Sampling methods

Product name	Test	Number
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

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

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2035 mg/m³	
	Long-term systemic effects dermal	773 mg/kg bw/day	

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	5306 mg/m³	
	Long-term systemic effects dermal	13964 mg/kg bw/day	

graphite

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	1.2 mg/m³	

DNEL/DMEL - General population

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	608 mg/m³	
	Long-term systemic effects inhalation	699 mg/kg bw/day	
	Long-term systemic effects oral	699 mg/kg bw/day	

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1131 mg/m³	
	Long-term systemic effects dermal	1377 mg/kg bw/day	
	Long-term systemic effects oral	1301 mg/kg bw/day	

graphite

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	0.3 mg/m³	
	Long-term systemic effects oral	813 mg/kg bw/day	

PNEC

copper flakes (coated with aliphatic acid)

Compartments	Value	Remark
Fresh water	7.8 µg/l	
Marine 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	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer. 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. Take precautions against electrostatic charges. 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 normal hygiene standards. 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).

c) Eye protection:

Face shield.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 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	Characteristic odour
Odour threshold	No data available
Colour	Colourless
Particle size	Not applicable (aerosol)
Explosion limits	1.5 - 11.2 vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available in the literature
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	No data available in the literature
Evaporation rate	No data available in the literature
Relative vapour density	No data available in the literature
Vapour pressure	> 1200 hPa ; 20 °C ; Propellant
Solubility	Water ; insoluble
Relative density	0.6 ; 20 °C ; Propellant
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available in the literature

9.2. Other information

Absolute density	600 kg/m³ ; 20 °C ; Propellant

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

Unstable on exposure to heat.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Upon combustion: CO and CO2 are formed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	7100 mg/kg bw - 7800 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	2200 mg/kg bw - 2500 mg/kg bw		Rabbit (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 21 mg/l	4 h	Rat (male / female)	Experimental value	

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 16750 mg/kg bw		Rat (male)	Read-across	
Dermal	LD50	Equivalent to OECD 402	> 3350 mg/kg bw	4 h	Rabbit (male)	Read-across	
Inhalation (vapours)	LC50	Equivalent to OECD 403	259.354 mg/l	4 h	Rat (male)	Read-across	

copper flakes (coated with aliphatic acid)

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	300 mg/kg bw - 500 mg/kg bw		Rat (male / female)	Experimental value	
Oral			category 4			Annex VI	
Inhalation	LC50	OECD 436	> 5.11 mg/l	4 h	Rat (male / female)	Experimental value	
Inhalation			category 3			Annex VI	

graphite

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	> 2000 mg/kg		Rat (female)	Experimental value	
Inhalation (dust)	LC50	OECD 403	> 2000 mg/m³ air	4 h	Rat (male / female)	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

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	Read-across	Single treatment
Skin	Irritating	OECD 404	4 h	1; 24; 48; 72 hrs; 7; 14 days	Rabbit	Experimental value	

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405	72 h	72 hours	Rabbit	Read-across	
Skin	Slightly irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

copper flakes (coated with aliphatic acid)

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Slightly irritating	OECD 405			Rabbit	Experimental value	
Eye	Irritating; category 2					Annex VI	

amines, N-tallow alkyltrimethylenedi-, oleates

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating; category 2					Literature study	
Skin	Irritating; category 2					Literature study	

graphite

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405	1 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	3 minutes - 240 minutes	24; 48; 72 hours	Rabbit	Experimental value	

Conclusion

Causes skin irritation.
Not classified as irritating to the eyes
Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406		24; 48 hours	Guinea pig (male / female)	Read-across	

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse (male / female)	Read-across	

graphite

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

Conclusion

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

Specific target organ toxicity

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Dermal	NOAEL	Equivalent to OECD 453	0.5 ml			52 weeks (3 times / week) - 104 weeks (3 times / week)	Mouse (male / female)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	24300 mg/m³ air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	
Inhalation			STOT SE cat.3					Literature study

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	10504 mg/m³ air		No effect	13 weeks (6h / day, 5 days / week)	Rat (male)	Read-across
Inhalation (vapours)	LOAEC	Equivalent to OECD 413	31652 mg/m³ air	Liver; kidney	Organ damage	13 weeks (6h / day, 5 days / week)	Rat (male)	Read-across

amines, N-tallow alkyltrimethylenedi-, oleates

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral			STOT RE cat.2					Literature study
Dermal			STOT RE cat.2					Literature study
			STOT RE cat.2					Literature study

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Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 422	813 mg/kg bw/day		No effect		Rat (male)	Experimental value
Oral (diet)	NOAEL	OECD 422	930 mg/kg bw/day - 1159 mg/kg bw/day		No effect		Rat (female)	Experimental value
Inhalation (dust)	NOAEC	OECD 412	12 mg/m³ air	Respiratory tract	No effect	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

Conclusion

May cause drowsiness or dizziness.
Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available
Judgement is based on the relevant ingredients

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Read-across	

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Read-across	

graphite

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value	
Negative	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	

Mutagenicity (in vivo)

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available
Judgement is based on the relevant ingredients

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	Equivalent to OECD 475	5 days (6h / day)	Rat (male / female)	Bone marrow	Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients
hydrocarbons, C6, isoalkanes, < 5% n-hexane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	9016 ppm	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Judgement is based on the relevant ingredients
hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	10560 mg/m³ air	10 days (6h / day)	Mouse	No effect		Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	3168 mg/m³ air	10 days (6h / day)	Mouse (female)	No effect		Read-across
Effects on fertility	NOAEL	Equivalent to OECD 416	31680 mg/m³ air	13 weeks (6h / day, 5 days / week)	Rat (male / female)	No effect		Read-across

hydrocarbons, C6, isoalkanes, < 5% n-hexane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	> 7000 ppm	10 days (6h / day)	Rat	No effect		Read-across
Maternal toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	2000 ppm	10 days (6h / day)	Rat (female)	No effect		Read-across
Effects on fertility (Inhalation (vapours))	NOAEC	Equivalent to OECD 416	9000 ppm		Rat (male / female)	No effect		Read-across

graphite

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 422	930 mg/kg bw/day		Rat	No effect	Foetus	Experimental value
Maternal toxicity	NOAEL	OECD 422	930 mg/kg bw/day - 1159 mg/kg bw/day		Rat	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
NOAEC	Equivalent to OECD 424	9000 ppm	Central nervous system	Overall effects	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value Inhalation

Chronic effects from short and long-term exposure

NOVALUBE AEROSOL 400ml

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

NOVALUBE AEROSOL 400ml

No (test)data on the mixture available

Classification is based on the relevant ingredients

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	11.4 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	3 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	30 mg/l - 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOELR		2.045 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.17 mg/l	21 day(s)	Daphnia magna	Static system	Fresh water	Read-across
Toxicity aquatic micro-organisms	EL50		35.57 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR
	NOELR		7.959 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR

hydrocarbons, C6, isoalkanes, < 5% n-hexane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50		18.27 mg/l	96 h	Oncorhynchus mykiss		Fresh water	QSAR
Acute toxicity crustacea	EL50		31.9 mg/l	48 h	Daphnia magna		Fresh water	QSAR
Toxicity algae and other aquatic plants	EL50		13.56 mg/l	72 h	Pseudokirchneriella subcapitata		Fresh water	QSAR
Long-term toxicity fish	NOELR		4.089 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR
Long-term toxicity aquatic crustacea	NOELR		7.138 mg/l	21 day(s)	Daphnia magna		Fresh water	QSAR

Classification of this substance is debatable as it does not correspond to the conclusion from the test

graphite

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 100 mg/l	96 h	Danio rerio	Static system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	OECD 202	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Behaviour
Toxicity algae and other aquatic plants	EC50	OECD 201	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	EC50	OECD 201	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Cell numbers
Toxicity aquatic micro-organisms	EC50	OECD 209	> 1012.5 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Respiration

Conclusion

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	98 %; GLP	28 day(s)	Experimental value

hydrocarbons, C6, isoalkanes, < 5% n-hexane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	98 %; GLP	28 day(s)	Read-across

Conclusion

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

NOVALUBE AEROSOL 400ml

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

hydrocarbons, C6, isoalkanes, < 5% n-hexane

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		501.187		Pimephales promelas	Calculated value

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		3.6	20 °C	Read-across

copper flakes (coated with aliphatic acid)

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

amines, N-tallow alkyltrimethylenedi-, oleates

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	70.79 l/kg; Fresh weight			Estimated value

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

graphite

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	98 %	0 %	0 %	0 %	1.3 %	QSAR

hydrocarbons, C6, isoalkanes, < 5% n-hexane

(log) Koc

Parameter	Method	Value	Value determination
log Koc		3.34	Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	93.6 %	0 %	2.1 %	0.5 %	3.8 %	Calculated value

amines, N-tallow alkyltrimethylenedi-, oleates

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Fugacity Model Level III	0.00899 %		2.74E-19 %	86.1 %	13.9 %	Calculated value

Conclusion

Contains component(s) that adsorb(s) into 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. Other adverse effects

NOVALUBE AEROSOL 400ml

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

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)

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. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Specific treatment. 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	yes

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	yes

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	yes

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	P
Environmentally hazardous substance mark	yes

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. Transport in bulk according to Annex II of Marpol and the IBC Code

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	yes

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:

VOC content Directive 2010/75/EU

VOC content	Remark
53.5 % - 100 %	

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
· hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane · hydrocarbons, C6, isoalkanes, < 5% n-hexane	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. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
· hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane · hydrocarbons, C6, isoalkanes, < 5% n-hexane	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.

National legislation Belgium

NOVALUBE AEROSOL 400ml

No data available

National legislation The Netherlands

NOVALUBE AEROSOL 400ml

Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)

National legislation France

NOVALUBE AEROSOL 400ml

No data available

National legislation Germany

NOVALUBE AEROSOL 400ml

WGK	3; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

TA-Luft	5.2.5/I

hydrocarbons, C6, isoalkanes, < 5% n-hexane

TA-Luft	5.2.5/I

copper flakes (coated with aliphatic acid)

TA-Luft	5.2.1

amines, N-tallow alkyltrimethylenedi-, oleates

TA-Luft	5.2.5/I

graphite

TA-Luft	5.2.1

National legislation United Kingdom

NOVALUBE AEROSOL 400ml

No data available

Other relevant data

NOVALUBE AEROSOL 400ml

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H-statements referred to under heading 3:

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
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.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
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.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
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

M-factor

copper flakes (coated with aliphatic acid)	10	Acute	CLP Annex VI (ATP 9)
amines, N-tallow alkyltrimethylenedi-, oleates	10	Acute	BIG
amines, N-tallow alkyltrimethylenedi-, oleates	1	Chronic	BIG

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of