SAFETY DATA SHEET

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

NOVAFUEL CARE & PROTECT

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

1.1. Product identifier

Product name : NOVAFUEL CARE & PROTECT
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

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.
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: Kerosine (petroleum), hydrodesulfurized.

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.
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	M-factors and ATE
Kerosine (petroleum), hydrodesulfurized 01-2119462828-25	64742-81-0 265-184-9	C≤50%	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(2)(10)	Constituent	
2-ethylhexan-1-ol 01-2119487289-20	104-76-7 203-234-3	C≤20%	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	(1)(2)(10)	Constituent	
hydrocarbons, C10, aromatics, <1% naphthalene 01-2119463583-34	918-811-1	C≤7%	Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411 EUH066	(1)(10)	Constituent	
propane 01-2119486944-21	74-98-6 200-827-9	C≤20%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant	
butane	106-97-8 203-448-7	C≤30%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Propellant	

(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%

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:
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:
Dizziness. Drowsiness. EXPOSURE TO HIGH CONCENTRATIONS: Nausea. Headache. Central nervous system depression. Narcosis.

After skin contact:
Tingling/irritation of the skin.

After eye contact:
Irritation of the eye tissue.

After ingestion:
Headache. Diarrhoea. Gastrointestinal complaints. Vomiting. Drowsiness.

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
Contain released product. Dam up the liquid spill. Prevent spreading in sewers.

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. 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. Do not discharge the waste into the drain.

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

7.2.2 Keep away from:
Heat sources, ignition sources.

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

2-ethylhexan-1-ol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	5.4 mg/m³

Belgium

2-Éthylhexan-1-ol	Time-weighted average exposure limit 8 h	1 ppm
	Time-weighted average exposure limit 8 h	5.4 mg/m³
Butane, tous isomères: n-butane	Short time value	980 ppm
	Short time value	2370 mg/m³
Carburant pour les moteurs à réaction (en vapeur d'hydrocarbure total) : application limitée aux conditions d'exposition aux aérosols négligeable	Time-weighted average exposure limit 8 h	200 mg/m³
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3)	Time-weighted average exposure limit 8 h	1000 ppm

The Netherlands

2-Ethylhexaan-1-ol	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	5.4 mg/m³

France

2-Ethylhexan-1-ol	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	5.4 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

2-Ethylhexan-1-ol	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	54 mg/m³
Butan	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

2-ethylhexan-1-ol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	5.4 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

USA (TLV-ACGIH)

Butane, isomers	Short time value (TLV - Adopted Value)	1000 ppm
Kerosene/Jet fuels, as total hydrocarbon vapor	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 mg/m³ (P)

(P): Application restricted to conditions in which there are negligible aerosol exposures

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
Kerosene (Naphthas)	NIOSH	1550

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

2-ethylhexan-1-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	12.8 mg/m³	
	Long-term local effects inhalation	53.2 mg/m³	
	Acute local effects inhalation	53.2 mg/m³	
	Long-term systemic effects dermal	23 mg/kg bw/day	

hydrocarbons, C10, aromatics, <1% naphthalene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	151 mg/m³	
	Long-term systemic effects dermal	12.5 mg/kg bw/day	

DNEL/DMEL - General population

2-ethylhexan-1-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.3 mg/m³	
	Long-term local effects inhalation	26.6 mg/m³	
	Acute local effects inhalation	26.6 mg/m³	
	Long-term systemic effects dermal	11.4 mg/kg bw/day	
	Long-term systemic effects oral	1.1 mg/kg bw/day	

hydrocarbons, C10, aromatics, <1% naphthalene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	32 mg/m³	
	Long-term systemic effects dermal	7.5 mg/kg bw/day	
	Long-term systemic effects oral	7.5 mg/kg bw/day	

PNEC

2-ethylhexan-1-ol

Compartments	Value	Remark
Fresh water	0.017 mg/l	
Marine water	0.002 mg/l	
Fresh water (intermittent releases)	0.17 mg/l	
STP	10 mg/l	
Fresh water sediment	0.284 mg/kg sediment dw	
Marine water sediment	0.028 mg/kg sediment dw	
Soil	0.047 mg/kg soil dw	
Oral	55 mg/kg food	

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. 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).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.35 mm	Class 6	

c) Eye protection:

Protective goggles (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034). Head/neck protection.

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	Characteristic odour
Odour threshold	No data available in the literature
Colour	No data available on colour
Particle size	Not applicable (liquid)
Explosion limits	0.7 - 12.7 vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)

Dynamic viscosity	1 mPa.s ; 20 °C ; Liquid
Kinematic viscosity	1 mm²/s ; 40 °C ; Liquid
Melting point	No data available in the literature
Boiling point	-42 °C - 250 °C ; Liquid
Relative vapour density	No data available in the literature
Vapour pressure	8530 hPa ; Propellant
Solubility	Water ; insoluble
Relative density	0.81 ; 20 °C ; Liquid
Absolute density	813 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

Evaporation rate	0.07 ; Butyl acetate ; Liquid

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. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

No data available.

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

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 420	> 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	> 5.28 mg/l air	4 h	Rat (male / female)	Read-across	

2-ethylhexan-1-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	2047 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50	OECD 402	> 3000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (mixture of vapour and aerosol)	LC50	OECD 403	0.89 mg/l air - 5.3 mg/l air	4 h	Rat (male / female)	Experimental value	

hydrocarbons, C10, aromatics, <1% naphthalene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 420	10650 mg/kg bw		Rat (male)	Read-across	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rabbit (male / female)	Read-across	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 4.78 mg/l air	4 h	Rat (male / female)	Read-across	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Classification is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	EPA OTS 798.4500			Rabbit	Read-across	
Skin	Irritating		24 h	24; 48; 72 hours	Rabbit	Read-across	

2-ethylhexan-1-ol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Highly irritating	OECD 404	4 h	1; 2; 3; 4; 7; 10; 14 days	Rabbit	Experimental value	
Inhalation	Irritating	Human observation	4 h		Human	Experimental value	

hydrocarbons, C10, aromatics, <1% naphthalene

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	
Skin	Not irritating	Equivalent to OECD 404	4 h	1; 24; 48; 72 hours	Rabbit	Read-across	

Conclusion

Causes skin irritation.

Causes serious eye irritation.

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

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

2-ethylhexan-1-ol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Human observation	48 h	24; 48; 72 hours	Human (male)	Experimental value	
Skin	Not sensitizing	Other	48 h		Human	Experimental value	

hydrocarbons, C10, aromatics, <1% naphthalene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Dermal	Not sensitizing	Human observation	2 day(s)	24; 48; 72 hours	Human	Read-across	

Conclusion

Not classified as sensitizing for inhalation

Not classified as sensitizing for skin

Specific target organ toxicity

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Classification is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	750 mg/kg bw/day		No effect	21 week(s)	Rat (female)	Read-across
Dermal	NOAEL	Equivalent to OECD 411	≥ 495 mg/kg bw/day		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Read-across
Inhalation (vapours)	NOAEL	Equivalent to OECD 413	> 1000 mg/m³ air		No effect	90 days (continuous)	Rat (female)	Read-across
Inhalation			STOT SE cat.3		Drowsiness, dizziness			Literature study

2-ethylhexan-1-ol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 408	250 mg/kg bw/day		No effect	90 day(s)	Mouse (male / female)	Experimental value
Dermal								No relevant data available
Inhalation	NOAEC	OECD 413	638.4 mg/m³ air		No effect	90 day(s)	Rat (male / female)	Experimental value
Inhalation		Human observation		Respiratory tract	Irritation of the respiratory tract		Human	Experimental value

hydrocarbons, C10, aromatics, <1% naphthalene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	300 mg/kg bw/day		No effect	13 weeks (daily)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 452	900 mg/m³ air - 1800 mg/m³ air		No effect	1 year(s) (6h / day, 5 days / week)	Rat (male / female)	Read-across

Conclusion

May cause drowsiness or dizziness.
Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

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	Read-across	

2-ethylhexan-1-ol

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	
Negative	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	

hydrocarbons, C10, aromatics, <1% naphthalene

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

Mutagenicity (in vivo)

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

Result	Method	Exposure time	Test substrate	Organ	Value determination
Ambiguous (Intraperitoneal)	Equivalent to OECD 479		Mouse (male / female)		Read-across

2-ethylhexan-1-ol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)	Equivalent to OECD 474	2 days (1x / day)	Mouse (male / female)		Experimental value

hydrocarbons, C10, aromatics, <1% naphthalene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474		Mouse (male / female)	Bone marrow	Read-across

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal		Equivalent to OECD 451		104 week(s)	Mouse (male)	Tumor formation	Skin	Read-across

2-ethylhexan-1-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 451	500 mg/kg bw/day	104 weeks (5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

hydrocarbons, C10, aromatics, <1% naphthalene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)								Data waiving
Dermal								Data waiving
Oral								Data waiving

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVAFUEL CARE & PROTECT

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	10 day(s)	Rat	No effect	Foetus	Read-across
	LOAEL	OECD 414	1500 mg/kg bw/day	10 day(s)	Rat	Reduced foetal bodyweights	Foetus	Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	500 mg/kg bw/day	10 day(s)	Rat	No effect		Read-across
	LOAEL	OECD 414	1000 mg/kg bw/day	10 day(s)	Rat	Body weight reduction		Read-across
Effects on fertility (Oral (stomach tube))	NOAEL	Equivalent to OECD 415	≥ 1500 mg/kg bw/day	21 week(s)	Rat (female)	No effect		Read-across
	NOAEL	Equivalent to OECD 415	≥ 3000 mg/kg bw/day	10 week(s) - 13 week(s)	Rat (male)	No effect		Read-across

2-ethylhexan-1-ol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (diet))	NOAEL	OECD 414	191 mg/kg bw/day	17 day(s)	Mouse	No effect		Experimental value
Maternal toxicity (Oral (diet))	NOAEL	OECD 414	191 mg/kg bw/day	17 days (gestation, daily)	Mouse	No effect		Experimental value
Effects on fertility (Oral (diet))	NOAEL	OECD 416	10000 ppm		Rat (male / female)	No effect		Read-across

hydrocarbons, C10, aromatics, <1% naphthalene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	> 450 mg/kg bw/day	21 day(s)	Rat (female)	No effect		Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	150 mg/kg bw/day	21 day(s)	Rat (female)	No effect		Read-across
Effects on fertility	NOAEC	Equivalent to OECD 416	≥ 1500 ppm		Rat (male / female)	No effect		Read-across

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

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hydrocarbons, C10, aromatics, <1% naphthalene

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
			Skin	Skin dryness or cracking			Literature study Skin

Chronic effects from short and long-term exposure

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No effects known.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

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No (test)data on the mixture available

Classification is based on the relevant ingredients

Kerosine (petroleum), hydrodesulfurized

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	2 mg/l - 5 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	1.4 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	1 mg/l - 3 mg/l	72 h	Selenastrum capricornutum	Static system	Fresh water	Experimental value; Cell numbers
Long-term toxicity aquatic crustacea	NOEL	Equivalent to OECD 211	0.48 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction

2-ethylhexan-1-ol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EU Method C.1	17.1 mg/l	96 h	Leuciscus idus	Flow-through system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	EU Method C.2	39 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	EU Method C.3	16.6 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
	EC10	EU Method C.3	5.3 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving

hydrocarbons, C10, aromatics, <1% naphthalene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	2 mg/l - 5 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Read-across; GLP
Acute toxicity crustacea	EL50	OECD 202	3 mg/l - 10 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	1 mg/l - 3 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; Growth rate
	NOELR	OECD 201	1 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; Growth rate
Long-term toxicity fish	NOELR		0.441 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR; Growth rate
Long-term toxicity aquatic crustacea	NOELR		0.771 mg/l	21 day(s)	Daphnia magna		Fresh water	QSAR; Reproduction

Conclusion

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Kerosine (petroleum), hydrodesulfurized

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	58.6 %	28 day(s)	Experimental value

2-ethylhexan-1-ol

Biodegradation water

Method	Value	Duration	Value determination
Equivalent to OECD 301C	> 79 %; Oxygen consumption	14 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	9.702 h	1.5E6 /cm³	Calculated value

hydrocarbons, C10, aromatics, <1% naphthalene

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	49.56 %; Oxygen consumption	28 day(s)	Experimental value

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

Kerosine (petroleum), hydrodesulfurized

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

2-ethylhexan-1-ol

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		2.9	25 °C	Experimental value

hydrocarbons, C10, aromatics, <1% naphthalene

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
					Data waiving

Log Kow

Method	Remark	Value	Temperature	Value determination
	Data waiving			

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

2-ethylhexan-1-ol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1.5475 - 2.1177	Calculated value

hydrocarbons, C10, aromatics, <1% naphthalene

(log) Koc

Parameter	Method	Value	Value determination
			Data waiving

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	65 %	0 %	10 %	11 %	14 %	Calculated value

Conclusion

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

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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)

Kerosine (petroleum), hydrodesulfurized

Groundwater

Groundwater pollutant

hydrocarbons, C10, aromatics, <1% naphthalene

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 08* (waste engine, gear and lubricating oils: other 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

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	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. 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	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
99.940 %	
719.980 g/l	

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
· Kerosine (petroleum), hydrodesulfurized · 2-ethylhexan-1-ol · hydrocarbons, C10, aromatics, <1% naphthalene	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.
· Kerosine (petroleum), hydrodesulfurized	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

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No data available

Kerosine (petroleum), hydrodesulfurized

Résorption peau	Carburant pour les moteurs à réaction (en vapeur d'hydrocarbure total) : application limitée aux conditions d'exposition aux aérosols négligeable; D; La mention "D" signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air.

National legislation The Netherlands

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Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)

National legislation France

NOVAFUEL CARE & PROTECT

No data available

National legislation Germany

NOVAFUEL CARE & PROTECT

WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

Kerosine (petroleum), hydrodesulfurized

TA-Luft	5.2.5

2-ethylhexan-1-ol

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	2-Ethylhexan-1-ol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

hydrocarbons, C10, aromatics, <1% naphthalene

TA-Luft	5.2.5

National legislation United Kingdom

NOVAFUEL CARE & PROTECT

No data available

Other relevant data

NOVAFUEL CARE & PROTECT

No data available

Kerosine (petroleum), hydrodesulfurized

TLV - Skin absorption	Kerosene/Jet fuels, as total hydrocarbon vapor; Skin; Danger of cutaneous absorption
TLV - Carcinogen	Kerosene/Jet fuels, as total hydrocarbon vapor; A3

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.
H226 Flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.

(*)	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

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