

Surface Cleaner

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

1.1. Product identifier

Product name : Surface Cleaner
 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

Detergent according to Regulation (EC) No 648/2004

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

SOULDAL N.V.
 Everdongenlaan 18-20
 B-2300 Turnhout
 ☎ +32 14 42 42 31
 ☐ +32 14 42 65 14
 msds@soudal.com

Manufacturer of the product

SOULDAL N.V.
 Everdongenlaan 18-20
 B-2300 Turnhout
 ☎ +32 14 42 42 31
 ☐ +32 14 42 65 14
 msds@soudal.com

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
Flam. Liq.	category 2	H225: Highly flammable liquid and vapour.
Asp. Tox.	category 1	H304: May be fatal if swallowed and enters airways.
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, C7-C9, n-alkanes, isoalkanes, cyclics.

Signal word Danger

H-statements

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

P-statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P280 Wear protective gloves and eye protection/face protection.

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P312	Call a POISON CENTER/doctor if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.
Supplemental information	
EUH066	Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

May build up electrostatic charges: risk of ignition
Gas/vapour spreads at floor level: ignition hazard
Caution! Substance is absorbed through the skin

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics 01-2119473851-33		C>25 %	Flam. Liq. 2; H225 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(10)	Constituent
ethyl acetate 01-2119475103-46	141-78-6 205-500-4	C<5 %	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent

(1) For H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

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 with water and soap. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Do not induce vomiting. 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:

Coughing. Dizziness. Headache. Nausea. EXPOSURE TO HIGH CONCENTRATIONS: Central nervous system depression. Feeling of weakness. Narcosis.

After skin contact:

ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

After eye contact:

Redness of the eye tissue. Visual disturbances.

After ingestion:

Risk of aspiration pneumonia. Irritation of the gastric/intestinal mucosa. Symptoms similar to those listed under inhalation. AFTER INGESTION OF HIGH QUANTITIES: Enlargement/affection of the liver. Affection of the renal tissue.

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.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Polyvalent foam. BC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

5.3. Advice for firefighters

5.3.1 Instructions:

Dilute toxic gases with water spray. 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 clothing. 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 clothing.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill. Try to reduce evaporation. Prevent soil and water pollution. Prevent spreading in sewers. Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. 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

Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: take precautions against electrostatic charges. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards. Keep container tightly closed. Remove contaminated clothing immediately. 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: 3 °C - 25 °C. Store in a dry area. Store in a dark area. Keep container in a well-ventilated place. Fireproof storeroom. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources, ignition sources, oxidizing agents, (strong) acids, (strong) bases.

7.2.3 Suitable packaging material:

Tin.

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.

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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

Acétate d'éthyle	Time-weighted average exposure limit 8 h	400 ppm
	Time-weighted average exposure limit 8 h	1461 mg/m ³

The Netherlands

Ethylacetaat	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	150 ppm
	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	550 mg/m ³
	Short time value (Private occupational exposure limit value)	300 ppm
	Short time value (Private occupational exposure limit value)	1100 mg/m ³

France

Acétate d'éthyle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	400 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1400 mg/m ³

Germany

Ethylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	400 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1500 mg/m ³

UK

Ethyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm
	Short time value (Workplace exposure limit (EH40/2005))	400 ppm

USA (TLV-ACGIH)

Ethyl acetate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	400 ppm
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b) National biological limit values

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

8.1.2 Sampling methods

If applicable and available it will be listed below.

Ethyl acetate (Volatile Organic compounds)	NIOSH	2549
Ethyl Acetate	NIOSH	1457
Ethyl Acetate	OSHA	7

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 DNEL/PNEC values

DNEL/DMEL - Workers

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2035 mg/m ³	
	Long-term systemic effects dermal	773 mg/kg bw/day	

ethyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	734 mg/m ³	
	Acute systemic effects inhalation	1468 mg/m ³	
	Long-term local effects inhalation	734 mg/m ³	
	Acute local effects inhalation	1468 mg/m ³	
	Long-term systemic effects dermal	63 mg/kg bw/day	

DNEL/DMEL - General population

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	608 mg/m ³	
	Long-term systemic effects dermal	699 mg/kg bw/day	
	Long-term systemic effects oral	699 mg/kg bw/day	

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Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	367 mg/m ³	
	Acute systemic effects inhalation	734 mg/m ³	
	Long-term local effects inhalation	367 mg/m ³	
	Acute local effects inhalation	734 mg/m ³	
	Long-term systemic effects dermal	37 mg/kg bw/day	
	Long-term systemic effects oral	4.5 mg/kg bw/day	

PNEC

ethyl acetate

Compartments	Value	Remark
Fresh water	0.24 mg/l	
Marine water	0.024 mg/l	
Aqua (intermittent releases)	1.65 mg/l	
STP	650 mg/l	
Fresh water sediment	1.15 mg/kg sediment dw	
Marine water sediment	0.115 mg/kg sediment dw	
Soil	0.148 mg/kg soil dw	
Oral	0.2 g/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

Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: take precautions against electrostatic charges. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit.

b) Hand protection:

- Gloves.
- materials (good resistance)
- PVC, rubber.

c) Eye protection:

Protective goggles.

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	Liquid
Odour	Characteristic odour
Odour threshold	No data available
Colour	Colourless
Particle size	Not applicable (liquid)
Explosion limits	0.6 - 12 vol %
Flammability	Highly flammable liquid and vapour.
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	77 °C - 138 °C
Flash point	3 °C
Evaporation rate	No data available
Relative vapour density	3.0
Vapour pressure	< 1100 hPa ; 50 °C
Solubility	No data available
Relative density	0.75
Decomposition temperature	No data available
Auto-ignition temperature	220 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties

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pH No data available

9.2. Other information

Absolute density 750 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

May build up electrostatic charges: risk of ignition. 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

Reacts violently with (strong) oxidizers and with (some) acids/bases.

10.4. Conditions to avoid

Insufficient ventilation: use spark-/explosionproof appliances and lighting system. Insufficient ventilation: keep naked flames/sparks away. Insufficient ventilation: take precautions against electrostatic charges.

10.5. Incompatible materials

Oxidizing agents, (strong) acids, (strong) bases.

10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5840 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50		> 4 ml/kg bw	24 h	Rat (male/female)	Experimental value	
Dermal	LD50		> 2920 mg/kg bw	24 h	Rat (male/female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 23.2 mg/l air	4 h	Rat (male/female)	Experimental value	

ethyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	10200 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	24 hour cuff method	> 20000 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC0	Equivalent to OECD 403	29.3 mg/l	4 h	Rat	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating				Rabbit	Experimental value	Single treatment
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

ethyl acetate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating; category 2					Annex VI	
Skin	Slightly irritating	Equivalent to OECD 404	24 h	24; 48; 72 hours	Rabbit	Experimental value	

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Judgement is based on the relevant ingredients

Conclusion

Not classified as irritating to the skin
Not classified as irritating to the eyes

Respiratory or skin sensitisation

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406			Guinea pig (male/female)	Experimental value	

ethyl acetate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Intradermal	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (female)	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

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

Specific target organ toxicity

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	5800 mg/m ³ air	Blood	No effect	13 weeks (6h/day, 5 days/week)	Rat (male)	Experimental value

ethyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	EPA OTS 795.2600	900 mg/kg bw/day	General	No effect	90 day(s) - 92 day(s)	Rat (male/female)	Experimental value
Oral (stomach tube)	LOAEL	EPA OTS 795.2600	3600 mg/kg bw/day	General	Body weight, organ weight, food consumption	90 day(s) - 92 day(s)	Rat (male/female)	Experimental value
Inhalation	NOEC	EPA OTS 798.2450	350 ppm	General	No adverse systemic effects	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

Classification is based on the relevant ingredients

Conclusion

May cause drowsiness or dizziness.

Mutagenicity (in vitro)

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (<i>S.typhimurium</i>)	No effect	Experimental value

ethyl acetate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative	Equivalent to OECD 471	Bacteria (<i>S.typhimurium</i>)	No effect	Experimental value

Mutagenicity (in vivo)

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

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

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ethyl acetate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474		Mouse (male)		Experimental value

Judgement is based on the relevant ingredients

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

Surface Cleaner

No (test) data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown								Data waiving

Judgement is based on the relevant ingredients

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

Surface Cleaner

No (test) data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	31680 mg/m ³ air	10 day(s)	Rat	No effect	Foetus	Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	3168 mg/m ³ air	10 day(s)	Rat	No effect		Read-across
	LOAEL	Equivalent to OECD 414	10560 mg/m ³ air	10 day(s)	Rat	Discolouration	Lungs	Read-across
Effects on fertility	NOAEL	Equivalent to OECD 416	31680 mg/m ³ air	13 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Read-across

ethyl acetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	> 3600 mg/kg bw/day	7 day(s)	Mouse	No effect	Foetus	Read-across
Maternal toxicity	NOAEL	Equivalent to OECD 414	2200 mg/kg bw/day	8 days (gestation, daily) - 14 days (gestation, daily)	Mouse	No effect		Read-across
	LOAEL	Equivalent to OECD 414	3600 mg/kg bw/day	8 days (gestation, daily) - 14 days (gestation, daily)	Mouse	Mortality	General	Read-across
Effects on fertility	NOAEL	Equivalent to OECD 416	20700 mg/kg bw/day	13 weeks (6h/day, 5 days/week)	Mouse (male/female)	No effect		Experimental value

Judgement is based on the relevant ingredients

Conclusion

Not classified for reprotoxic or developmental toxicity

Aspiration hazard

Classification is based on the relevant ingredients

May be fatal if swallowed and enters airways.

Toxicity other effects

Surface Cleaner

No (test) data on the mixture available

ethyl acetate

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

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Classification is based on the relevant ingredients

Conclusion

Repeated exposure may cause skin dryness or cracking.

Chronic effects from short and long-term exposure

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ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Dry skin. Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

Surface Cleaner

No (test)data on the mixture available

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	3 mg/l - 10 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	4.6 mg/l - 10.0 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	10 mg/l - 30 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	NOELR	OECD 201	10 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOELR		0.574 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.17 mg/l	21 day(s)	Daphnia magna	Static system	Fresh water	Experimental value; GLP

ethyl acetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	US EPA	230 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	EC50		154 mg/l	48 h	Daphnia magna			Literature
Toxicity algae and other aquatic plants	NOEC	OECD 201	> 100 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	ECOSAR v1.00	6.3 mg/l	32 day(s)	Pisces		Fresh water	QSAR
	NOEC	OECD 210	< 9.65 mg/l	32 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Growth rate
Long-term toxicity aquatic crustacea	NOEC	Equivalent to OECD 211	2.4 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	EC50		5870 mg/l	15 minutes	Photobacterium phosphoreum	Static system	Salt water	Experimental value; Inhibitory

Classification of the mixture is based on the relevant ingredients

Conclusion

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Biodegradation water

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

ethyl acetate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B: CO2 Evolution Test	93.9 %	28 day(s)	Experimental value
OECD 301D: Closed Bottle Test	100 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	40 h	500000 /cm ³	QSAR

Conclusion

Contains readily biodegradable component(s)

12.3. Bioaccumulative potential

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Log Kow

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Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Log Kow

Method	Remark	Value	Temperature	Value determination
		4 - 5.7		

ethyl acetate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		30	3 day(s)	Leuciscus idus	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
EPA OPPTS 830.7560		0.68	25 °C	Experimental value

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.4. Mobility in soil

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	14.6 %	0 %	55.6 %	26.4 %	3.4 %	Calculated value

ethyl acetate

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	51.3 %	0 %	0.27 %	13.3 %	35.3 %	Calculated value

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

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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)

hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Ground water

Ground water pollutant

ethyl acetate

Ground water

Ground water 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.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

20 01 29* (separately collected fractions (except 15 01): detergents containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. 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. Avoid discharge of large amounts into the sewer.

13.1.3 Packaging/Container

European Union

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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	1993
14.2. UN proper shipping name	Proper shipping name	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
14.3. Transport hazard class(es)	Hazard identification number	33
	Class	3
	Classification code	F1
14.4. Packing group	Packing group	II
	Labels	3
14.5. Environmental hazards	Environmentally hazardous substance mark	yes
14.6. Special precautions for user	Special provisions	274
	Special provisions	601
	Special provisions	640D
	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	1993
14.2. UN proper shipping name	Proper shipping name	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
14.3. Transport hazard class(es)	Hazard identification number	33
	Class	3
	Classification code	F1
14.4. Packing group	Packing group	II
	Labels	3
14.5. Environmental hazards	Environmentally hazardous substance mark	yes
14.6. Special precautions for user	Special provisions	274
	Special provisions	601
	Special provisions	640D
	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	1993
14.2. UN proper shipping name	Proper shipping name	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
14.3. Transport hazard class(es)	Class	3
	Classification code	F1
14.4. Packing group	Packing group	II
	Labels	3
14.5. Environmental hazards	Environmentally hazardous substance mark	yes
14.6. Special precautions for user	Special provisions	274
	Special provisions	601
	Special provisions	640D
	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)

Reason for revision: 2;3

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Sea (IMDG/IMSBC)

14.1. UN number	UN number	1993
14.2. UN proper shipping name	Proper shipping name	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
14.3. Transport hazard class(es)	Class	3
14.4. Packing group	Packing group	II
	Labels	3
14.5. Environmental hazards	Marine pollutant	P
	Environmentally hazardous substance mark	yes
14.6. Special precautions for user	Special provisions	274
	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, based on available data

Air (ICAO-TI/IATA-DGR)

14.1. UN number	UN number	1993
14.2. UN proper shipping name	Proper shipping name	Flammable liquid, n.o.s. (hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics)
14.3. Transport hazard class(es)	Class	3
14.4. Packing group	Packing group	II
	Labels	3
14.5. Environmental hazards	Environmentally hazardous substance mark	yes
14.6. Special precautions for user	Special provisions	A3
	Limited quantities: maximum net quantity per packaging	1 L

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
100 %	

Ingredients according to Regulation (EC) No 648/2004 and amendments

≥30% aliphatic hydrocarbons

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, C7-C9, n-alkanes, isoalkanes, cyclics ethyl acetate	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are 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 R65 or 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 R65 or H304, intended for supply to the general public are

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		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 R65 or 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 R65 or 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 R65 or 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 R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics ethyl acetate	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, — "whoopie" 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

Surface Cleaner

No data available

National legislation The Netherlands

Surface Cleaner

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 03
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National legislation France

Surface Cleaner

No data available

National legislation Germany

Surface Cleaner

WGK	2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
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hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

TA-Luft	5.2.5; I
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ethyl acetate

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Ethylacetat; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

National legislation United Kingdom

Surface Cleaner

No data available

Other relevant data

Surface Cleaner

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

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SECTION 16: Other information

Full text of any H-statements referred to under headings 2 and 3:

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
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

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. Old versions must be destroyed. 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 has been elaborated for use within the European Union, Switzerland, Iceland, Norway and Lichtenstein. It may be consulted in other countries, where local legislation with regards to the set-up of safety data sheets will take precedence. It is your obligation to verify and apply such local legislation. 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 BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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