

Soudafoam SMX

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

1.1. Product identifier

Product name : Soudafoam SMX
 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
 Silane-terminated polyurethane

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
 SOUDAL 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
 SOUDAL 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
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.

2.2. Label elements



Signal word

Danger

H-statements

H222 Extremely flammable aerosol.
 H229 Pressurised container: May burst if heated.

P-statements

P102 Keep out of reach of children.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

2.3. Other hazards

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May build up electrostatic charges: risk of ignition
Gas/vapour spreads at floor level: ignition hazard

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
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
dimethyl ether 01-2119472128-37	115-10-6 204-065-8	1%<C<10%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
triphenyl phosphate	115-86-6 204-112-2	0.1%<C<2.5 %	Aquatic Acute 1; H400 Aquatic Chronic 2; H411	(1)(2)	Constituent
isobutane 01-2119485395-27	75-28-5 200-857-2	1%<C<10%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
trimethoxyvinylsilane 01-2119513215-52	2768-02-7 220-449-8	1%<C<5%	Flam. Liq. 3; H226 Acute Tox. 4; H332	(1)(10)	Constituent
(1,3-butadiene, conc<0.1%)					

(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:

If you feel unwell, seek medical advice.

After inhalation:

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

After skin contact:

Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. 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 neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. 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:

No effects known.

After skin contact:

No effects known.

After eye contact:

EXPOSURE TO HIGH CONCENTRATIONS: Redness of the eye tissue.

After ingestion:

Not applicable.

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

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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

On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, carbon monoxide - carbon dioxide). 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: persistent risk of physical explosion.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective goggles. 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 goggles. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Dam up the liquid spill. Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up

Allow product to solidify and remove it by mechanical means. Carefully collect the spill/leftovers. Clean (treat) contaminated surfaces with acetone. 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. Keep away from naked flames/heat. Keep away from ignition sources/sparks. 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. Ventilation at floor level. Fireproof storeroom. Meet the legal requirements.

Max. storage time: 1 year(s).

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.

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EU

Dimethylether	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1000 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1920 mg/m ³

Belgium

Hydrocarbures aliphatiques sous forme gazeuse : (Alcanes C1-C4)	Time-weighted average exposure limit 8 h	1000 ppm
Oxyde de diméthyle	Time-weighted average exposure limit 8 h	1000 ppm
	Time-weighted average exposure limit 8 h	1920 mg/m ³
Phosphate de triphényle	Time-weighted average exposure limit 8 h	3 mg/m ³

The Netherlands

Dimethylether	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	496 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	950 mg/m ³
	Short time value (Public occupational exposure limit value)	783 ppm
	Short time value (Public occupational exposure limit value)	1500 mg/m ³

France

Oxyde de diméthyle	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1000 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1920 mg/m ³
Phosphate de triphényle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	3 mg/m ³

Germany

Dimethylether	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1900 mg/m ³
Isobutan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m ³
Propan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1800 mg/m ³

UK

Dimethyl ether	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	400 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	766 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	958 mg/m ³
Triphenyl phosphate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	3 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	6 mg/m ³

USA (TLV-ACGIH)

Butane, all isomers	Short time value (TLV - Adopted Value)	1000 ppm
Triphenyl phosphate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	3 mg/m ³

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
Triphenyl Phosphate	NIOSH	5038

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

triphenyl phosphate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.55 mg/m ³	
	Long-term systemic effects dermal	5.55 mg/kg bw/day	

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trimethoxyvinylsilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	27.6 mg/m ³	
	Long-term systemic effects dermal	3.9 mg/kg bw/day	

DNEL/DMEL - General population

triphenyl phosphate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.14 mg/m ³	
	Long-term systemic effects dermal	2.77 mg/kg bw/day	
	Long-term systemic effects oral	0.04 mg/kg bw/day	

trimethoxyvinylsilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	18.9 mg/m ³	
	Long-term systemic effects dermal	7.8 mg/kg bw/day	
	Long-term systemic effects oral	0.3 mg/kg bw/day	

PNEC

triphenyl phosphate

Compartments	Value	Remark
Fresh water	0.0037 mg/l	
Marine water	0.00037 mg/l	
Aqua (intermittent releases)	0.0025 mg/l	
STP	5 mg/l	
Fresh water sediment	0.2397 mg/kg sediment dw	
Marine water sediment	0.2397 mg/kg sediment dw	
Soil	0.0385 mg/kg soil dw	
Oral	0.833 mg/kg food	

trimethoxyvinylsilane

Compartments	Value	Remark
Fresh water	0.36 mg/l	
Aqua (intermittent releases)	2.4 mg/l	
Marine water	0.036 mg/l	
STP	6.6 mg/l	
Fresh water sediment	1.3 mg/kg sediment dw	
Marine water sediment	0.13 mg/kg sediment dw	
Soil	0.055 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

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

8.2.1 Appropriate engineering controls

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

8.2.2 Individual protection measures, such as personal protective equipment

Observe 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 (EN374).

Materials	Measured breakthrough time	Thickness	Protection index
LDPE (Low Density Poly Ethylene)	> 10 minutes	0.025 mm	Class 1

- materials (good resistance)

LDPE (Low Density Poly Ethylene).

c) Eye protection:

Protective goggles.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

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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	Variable in colour, depending on the composition
Particle size	No data available
Explosion limits	No data available
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	No data available
Solubility	Water ; insoluble
Relative density	0.9893
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Flash point	Not applicable
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2. Other information

Absolute density	989.3 kg/m ³
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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

No data available.

10.4. Conditions to avoid

Precautionary measures

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

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triphenyl phosphate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 20000 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 10000 mg/kg bw		Rabbit	Experimental value	
Inhalation (dust)	LC50	Equivalent to OECD 403	> 200 mg/l	1 h	Rabbit (male/female)	Inconclusive, insufficient data	

trimethoxyvinylsilane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	7120 mg/kg bw - 7236 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	3259 mg/kg bw - 3880 mg/kg bw	24 h	Rabbit (female)	Converted value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	16.8 mg/l	4 h	Rat (male/female)	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Soudafoam SMX

No (test)data on the mixture available

Judgement is based on the relevant ingredients

triphenyl phosphate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405	24 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

trimethoxyvinylsilane

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

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

Soudafoam SMX

No (test)data on the mixture available

Judgement is based on the relevant ingredients

triphenyl phosphate

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

trimethoxyvinylsilane

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

Conclusion

Not classified as sensitizing for inhalation

Not classified as sensitizing for skin

Specific target organ toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

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triphenyl phosphate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOEL	OECD 407	23.5 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male)	Experimental value
Oral (diet)	NOEL	OECD 407	161.4 mg/kg bw/day		No effect	4 weeks (daily)	Rat (female)	Experimental value
Oral (diet)	NOAEL	OECD 407	250 ppm		No effect	4 weeks (daily)	Rat (male)	Experimental value
Oral (diet)	NOAEL	OECD 407	4000 ppm	Liver	No effect	4 weeks (daily)	Rat (female)	Experimental value
Dermal	NOAEL	EPA OPPTS 870.3200	1000 mg/kg bw/day		No effect	3 weeks (5 days/week)	Rabbit (male/female)	Experimental value
Inhalation								Data waiving

trimethoxyvinylsilane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	LOAEL	OECD 422	62.5 mg/kg bw/day	Bladder	Histopathological changes	6 weeks (daily) - 8 weeks (daily)	Rat (male/female)	Experimental value
Oral (stomach tube)	LOAEL	OECD 422	250 mg/kg bw/day	Bladder	Histopathological changes	6 weeks (daily) - 8 weeks (daily)	Rat (male/female)	Experimental value
Inhalation (vapours)	NOAEC	Subchronic toxicity test	100 ppm		No effect	14 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

Soudafoam SMX

No (test)data on the mixture available

triphenyl phosphate

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 473	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value
Negative	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative without metabolic activation	Equivalent to OECD 482	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value

trimethoxyvinylsilane

Result	Method	Test substrate	Effect	Value determination
Positive with metabolic activation, positive without metabolic activation	OECD 473	CHL/IU cells	Chromosome aberrations	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)		Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

Mutagenicity (in vivo)

Soudafoam SMX

No (test)data on the mixture available

Judgement is based on the relevant ingredients

trimethoxyvinylsilane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	OECD 489	3 days (1x/day)	Rat (female)		Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

Soudafoam SMX

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for carcinogenicity

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Reproductive toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

triphenyl phosphate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	≥ 690 mg/kg bw/day	13 weeks (daily)	Rat (male/female)	No effect		Experimental value
Maternal toxicity	NOAEL	Equivalent to OECD 414	≥ 690 mg/kg bw/day	13 weeks (daily)	Rat (female)	No effect		Experimental value
Effects on fertility	NOEL	Equivalent to OECD 415	690 mg/kg bw/day	13 weeks (daily)	Rat (male/female)	No effect		Experimental value

trimethoxyvinylsilane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEL	EPA OTS 798.4350	100 ppm	10 days (gestation, 6h/day)	Rat (female)	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	EPA OTS 798.4350	25 ppm	10 days (gestation, 6h/day)	Rat (female)	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (P)	OECD 422	1000 mg/kg bw/day	≤ 43 day(s)	Rat (male)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

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No (test)data on the mixture available

Chronic effects from short and long-term exposure

Soudafoam SMX

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

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No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

triphenyl phosphate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 660/3 - 75/009	0.4 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	EPA 660/3 - 75/009	1 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EC50	US EPA	2 mg/l	96 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value
	NOEC	Equivalent to OECD 201	0.25 mg/l - 2.5 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	EC10	US EPA	0.037 mg/l	30 day(s)	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.254 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

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	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		191 mg/l	96 h	Oncorhynchus mykiss		Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	EU Method C.2	168.7 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	EPA 67014-73-0	210 mg/l	7 day(s)	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 211	28.1 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

triphenyl phosphate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C: Modified MITI Test (I)	83 % - 94 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.90	11.8 h	1500000 /cm ³	Calculated value

Biodegradation soil

Method	Value	Duration	Value determination
	79.8 % - 84.4 %	101 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
	3 day(s) - 28 day(s)	Primary degradation	Experimental value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
	37 day(s)	Primary degradation	Experimental value

trimethoxyvinylsilane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F: Manometric Respirometry Test	51 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	0.56 day(s)	500000 /cm ³	Calculated value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
OECD 111: Hydrolysis as a function of pH	< 2.4 h; pH = 7	Primary degradation	Weight of evidence

Conclusion

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)			

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triphenyl phosphate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	Other	144; Fresh weight	18 day(s)	Oryzias latipes	Experimental value

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF		43; Chronic		Lemna sp.	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		4.63	20 °C	Experimental value

trimethoxyvinylsilane

Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN	Calculated	-2	20 °C	QSAR

Conclusion

Contains bioaccumulative component(s)

12.4. Mobility in soil

triphenyl phosphate

(log) Koc

Parameter	Method	Value	Value determination
Koc	Other	2514 - 3561	Experimental value
log Koc		3.4 - 3.55	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.00403 atm m ³ /mol		25 °C		Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	0.7 %	0.03 %	41 %	43.9 %	14.3 %	Calculated value

trimethoxyvinylsilane

(log) Koc

Parameter	Method	Value	Value determination
			Data waiving

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
8.72E-5 atm m ³ /mol		25 °C		Estimated value

Conclusion

Contains component(s) that adsorb(s) into the soil

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)

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).

16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing hazardous substances).

Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

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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.

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
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14.2. UN proper shipping name

Proper shipping name	Aerosols
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14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

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

Rail (RID)

14.1. UN number

UN number	1950
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14.2. UN proper shipping name

Proper shipping name	Aerosols
----------------------	----------

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

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

Inland waterways (ADN)

14.1. UN number

UN number	1950
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14.2. UN proper shipping name

Proper shipping name	Aerosols
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14.3. Transport hazard class(es)

Class	2
Classification code	5F

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14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

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

Sea (IMDG/IMSBC)

14.1. UN number

UN number	1950
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14.2. UN proper shipping name

Proper shipping name	Aerosols
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14.3. Transport hazard class(es)

Class	2.1
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14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	63
Special provisions	190
Special provisions	277
Special provisions	327
Special provisions	344
Special provisions	381
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
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Air (ICAO-TI/IATA-DGR)

14.1. UN number

UN number	1950
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14.2. UN proper shipping name

Proper shipping name	Aerosols, flammable
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14.3. Transport hazard class(es)

Class	2.1
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14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
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14.6. Special precautions for user

Special provisions	A145
Special provisions	A167
Special provisions	A802
Limited quantities: maximum net quantity per packaging	30 kg G

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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
20.62 % - 21.08 %	
204.00 g/l - 208.52 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
trimethoxyvinylsilane	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 as trays, — 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 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.'
trimethoxyvinylsilane	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

National legislation The Netherlands

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Waterbezwaarlijkheid	Z (2)
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National legislation France

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No data available

National legislation Germany

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WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4) and Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) of 18 April 2017
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triphenyl phosphate

TA-Luft	5.2.5; I
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trimethoxyvinylsilane

TA-Luft	5.2.5
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National legislation United Kingdom

Soudafoam SMX
No data available

Other relevant data

Soudafoam SMX
No data available

triphenyl phosphate

TLV - Carcinogen	Triphenyl phosphate; A4
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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.
- H226 Flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H280 Contains gas under pressure; may explode if heated.
- H332 Harmful if inhaled.
- H400 Very toxic to aquatic life.
- 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

M-factor

triphenyl phosphate	1	Acute	BIG
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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

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