



SAFETY DATA SHEET



SAFETY DATA SHEET HIGH MODULUS SILICONE

F H Brundle Product Ref.: 189901201 (clear) & 189901202 (black)
Date of issue: 15th July 2021

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

1.1 Product identifier

Product name:	High Modulus Silicone
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
Sealant

1.2.2 Uses advised against
No uses advised against known

1.3 Details of the supplier of the safety data sheet

Company name:	F H Brundle 24-36 Lamson Road Ferry Lane North Rainham RM13 9YY UK
Tel:	+44 (0) 1708 253545
Fax:	+44 (0) 1708 253550
Email:	sales@brundle.com

1.4. Emergency telephone number

Emergency tel:	+44 (0) 1282 834545 (Mon- Fri 08:30 - 16:30) Web: www.fhbrundle.co.uk
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Section 2: Hazards identification

2.1. Classification of the substance or mixture

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

2.2 Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008
Supplemental information
EUH208 - Contains: 2-octyl-2H-isothiazol-3-one. May produce an allergic reaction.

2.3 Other hazards

No other hazards known

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Hazardous ingredient	Registration number	CAS-nr.	EC-nr	Conc. (C)	Classification according to CLP	Note	Remark
triacetoxylethylsilane	01-2119881778-15	17689-77-9	241-677-4	C<4%	Acute Tox. 4; H302 Skin Corr. 1B; H314	(1) (10)	Constituent
hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	01-2119827000-58			15%<C<25%	Asp. Tox. 1; H304	(1) (10)	Constituent
2-octyl-2H- isothiazol-3-one		26530-20-1	247-761-7	0.005%<C<0.05%	Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1) (2) (10)	Constituent

Explanation notes

(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:

Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Not irritating.

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:

Not irritating. ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

After eye contact:

Not irritating.

After ingestion:

No effects known.

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:

Polyvalent foam. Dry chemical powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO₂ and small quantities of hydrogen chloride, sulphur oxides.

5.3 Advice for firefighters

5.3.1 Instructions:

No specific firefighting instructions required.

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

No naked flames.

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 precaution

Contain released product. Use appropriate containment to avoid environmental contamination.

6.3 Methods and materials for containment and cleaning up

Cover the solid spill with sand/kieselguhr. Scoop solid spill into closing containers. Clean contaminated surfaces with a soap solution. 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 the annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling

Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Store in a dry area. Store at room temperature. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat source, oxidizing agents.

7.2.3 Suitable packaging material:

Plastics.

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 (exposure limits)

8.1.1 Occupational exposure

a) Occupational exposure limit values:

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

Belgium		
Huiles minérales (brouillards)	Time-weighted average exposure limit 8 h	5 mg/m³
	Short time value 10 mg/m³	10 mg/m³

The Netherlands		
2-n-Octyl-2,3-dihydro-iso-thiazol-3-on	Time-weighted average exposure limit 8 h (Private occupational exposure limit value)	0.05 mg/m³
Olienevel (minerale olie)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	5 mg/m³

Germany		
2-Octyl-2H-isothiazol-3-on	Time-weighted average exposure limit 8 h (TRGS 900)	0.05 mg/m³

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.

Oil Mist (Mineral)	NIOSH	5026
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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

triaceoxyethylsilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute local effects inhalation	32.5 mg/m³	
	Long-term local effects inhalation	32.5 mg/m³	

DNEL/DMEL - General population

triaceoxyethylsilane

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	6.5 mg/m³	

PNEC

triaceoxyethylsilane

Compartments	Value	Remark
Fresh water	0.2 mg/l	
Marine water	0.02 mg/l	
Aqua (intermittent releases)	1.7 mg/l	
STP	1 mg/l	
Fresh water sediment	0.74 mg/kg sediment dw	
Marine water sediment	0.074 mg/kg sediment dw	
Soil	0.031 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

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment
Observe strict hygiene. 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.

c) Eye protection:

Safety glasses.

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	Paste
Odour	Vinegar 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	Not easily combustible
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
Flash point	> 100 °C
Evaporation rate	No data available
Relative vapour density	Not applicable
Vapour pressure	No data available
Solubility	water ; insoluble
Relative density	1.03 ; 20 °C
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with explosive properties
pH	No data available

9.2 Other information

Absolute density	1030 kg/m³ ; 20 °C
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Section 10: Stability and reactivity

10.1 Reactivity

Temperature above flashpoint: higher fire/explosion hazard. No data available.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Keep away from naked flames/heat.

10.5 Incompatible materials

Oxidizing agents.

10.6 Hazardous decomposition products

Upon combustion: formation of CO, CO₂ and small quantities of hydrogen chloride, sulphur oxides.

Section 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Test results

Acute toxicity

High Modulus Silicone

No (test)data on the mixture available

triacetoxymethylsilane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	1460 mg/kg bw		Rat (male/female)	Experimental value	
Dermal						Data waiving	
Inhalation						Data waiving	

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 5000 mg/kg bw		Rat (male/female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 3160 mg/kg bw	24 h	Rabbit (male/female)	Experimental value	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 5266 mg/m ³ air	4 h	Rat (male/female)	Experimental value	

2-octyl-2H-isothiazol-3-one

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		550 mg/kg		Rat	Literature study	
Oral			category 4			Annex VI	
Dermal	LD50		690 mg/kg bw		Rabbit	Literature study	
Dermal			category 3			Annex VI	
Inhalation (vapours)	LD50		> 2 mg/m ³	4 h	Rat	Literature study	
Inhalation			category 3			Annex VI	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

High Modulus Silicone

No (test)data on the mixture available

triacetoxylethylsilane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Eye	5%: not irritating	OECD 405	24 h	1; 24; 48; 72; 168 hours	Rabbit	Literature study	
Skin	Corrosive	Equivalent to OECD 404	3 minutes	24; 48; 72 hours	Rabbit	Experimental value	
Skin	5%: not irritating	OECD 404	4 h	1; 24; 48; 72 hrs; 7; 14 days	Rabbit	Literature study	

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

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

2-octyl-2H-isothiazol-3-one

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage; category 1					Literature study	
Eye	Serious eye damage; category 1					Annex VI	
Skin	Corrosive; category 1B					Literature study	
Skin	Corrosive; category 1B					Annex VI	

In the light of practical experience, the classification for this mixture is less stringent than the one based on the calculation set out

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

High Modulus Silicone

No (test) data on the mixture available

triacetoxylethylsilane

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Skin	Negative	OECD 406	6 h	24; 48 hours	Guinea pig (female)	Experimental value	

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

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

2-octyl-2H-isothiazol-3-one

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Dermal	Sensitizing	OECD 429			Mouse	Literature	
Skin	Sensitizing; category 1A					Literature study	

Judgement is based on the relevant ingredients
Conclusion
Not classified as sensitizing for skin
Not classified as sensitizing for inhalation
Specific target organ toxicity
High Modulus Silicone
No (test)data on the mixture available
triacetoxymethylsilane

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)		Subacute toxicity test		General	Reduced body weight and food consumption; CNS effects; signs of necropsy	7 day(s)	Rat (male/female)	Experimental value
Dermal								Data waiving
Inhalation								Data waiving

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	Equivalent to OECD 408	> 5000 mg/kg bw/day		No effect	13 weeks (daily)	Rat (male/female)	Read-across
Dermal	NOAEL	Equivalent to OECD 411	> 495 mg/kg/d		No effect	13 weeks (daily, 5 days/week)	Rat (male/female)	Read-across
Inhalation (vapours)	NOAEL	Equivalent to OECD 413	10186 mg/m³ air		No effect	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Read-across

Judgement is based on the relevant ingredients
Conclusion
Not classified for subchronic toxicity

Mutagenicity (in vitro)

High Modulus Silicone
No (test)data on the mixture available
triacetoxymethylsilane

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

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)		Read-across
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)		Read-across

Mutagenicity (in vivo)

High Modulus Silicone

No (test)data on the mixture available
triacetoxymethylsilane

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative			Mouse (male)		

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 483	8 weeks (6h/day, 5 days/week)	Mouse (male)	Male reproductive organ	Read-across
Negative	Equivalent to OECD 475		Rat (male/female)	Bone marrow	Read-across
Negative	Equivalent to OECD 474	24 h - 72 h	Mouse (male/female)	Bone marrow	Read-across

Judgement is based on the relevant ingredients

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

High Modulus Silicone

No (test)data on the mixture available

Judgement is based on the relevant ingredients

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

High Modulus Silicone

No (test)data on the mixture available

triacetoxymethylsilane

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Other	≥ 1600 mg/kg bw/day	17 day(s)	Mouse	No effect		Experimental value
	NOAEL	Other	≥ 1000 mg/kg bw/day	5 day(s)	Mouse	No effect		Experimental value
Maternal toxicity	NOAEL	Other	≥ 1600 mg/kg bw/day	17 day(s)	Mouse	No effect		Experimental value
	NOAEL	Other	≥ 1000 mg/kg bw/day	5 day(s)	Mouse	No effect		Experimental value
Effects on fertility	NOAEL (P)	Other	50 mg/kg bw/day		Rat (female)	No effect		Experimental value
	NOAEL (P)	Other	≥ 2500 mg/kg bw/day		Rat (female)	No effect		Experimental value

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 414	> 1000 mg/kg bw/day	10 day(s)	Rat (female)	No effect		Experimental value
Maternal toxicity	NOAEL	OECD 414	> 1000 mg/kg bw/day	10 day(s)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEL (P)	Equivalent to OECD 422	> 1000 mg/kg bw/day		Rat (male/female)	No effect		Read-across
	NOAEL (P)	Equivalent to OECD 421	> 1000 mg/kg bw/day		Rat (male/female)	No effect		Read-across

Judgement is based on the relevant ingredients

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

High Modulus Silicone

No (test)data on the mixture available

Chronic effects from short and long-term exposure

High Modulus Silicone

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

Section 12: Ecological information

12.1 Toxicity

High Modulus Silicone

No (test)data on the mixture available

triacetoxyethylsilane

	Parameter	Method	Value	Duration	Species	Test design	Fresh salt/ water	Value determination
Acute toxicity fishes	LC50	OECD 203	251 mg/l	96 h	Brachydanio rerio	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	62 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
	NOEC	OECD 202	43 mg/	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
	EC50	EU Method C.2	168.7 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	76 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Growth rate
	EC50	OECD 201	73 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Biomass
	EC50	OECD 201	24.41 mg/l	72 h	Pseudokirchnerie lla subcapitata	Static system	Fresh water	Experimental value
	NOEC	EPA 67014-73-0	25 mg/l	7 day(s)	Pseudokirchnerie lla subcapitata	Static system	Fresh water	Read-across; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	≥ 100 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Read-across; GLP
Toxicity aquatic microorganisms	LC50	OECD 209	> 100 mg/	3 h	Activated sludge	Static system	Fresh water	Read-across; GLP
	NOEC	OECD 301C	100 mg/l	28 h	Activated sludge		Fresh water	Read-across

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity soil macro-organisms	LC50	Other	> 1000 mg/kg soil dw	14 day(s)	Eisenia fetida	Experimental value
	NOEC	Other	> 1000 mg/kg soil dw	14 day(s)	Eisenia fetida	Experimental value

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh salt/ water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	> 1028 mg/l	96 h	Scophthalmus maximus	Semi-static system	Salt water	Experimental value; GLP
Acute toxicity crustacea	LC50	ISO 14669	> 3193 mg/l	48 h	Acartia tonsa	Static system	Salt water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	ISO 10253	> 10000 mg/l	72 h	Skeletonema costatum	Static system	Salt water	Experimental value; GLP
Long-term toxicity fish	NOEL		> 1000 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR; Growth rate
Long-term toxicity aquatic crustacea	NOEL	US EPA	> 100 mg/l	8 day(s)	Ceriodaphnia dubia	Semi-static system	Fresh water	QSAR; Nominal concentration
Toxicity aquatic microorganisms	EC50	OECD 209	> 100 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; GLP

2-octyl-2H-isothiazol-3-one

	Parameter	Method	Value	Duration	Species	Test design	Fresh salt/ water	Value determination
Acute toxicity fishes	LC50		0.14 mg/l	96 h	Pimephales promelas			Literature study
Acute toxicity crustacea	EC50		0.18 mg/l	48 h	Daphnia magna			Literature study
Toxicity aquatic microorganisms	EC20	OECD 209	7.3 mg/l	3 h	Activated sludge			Experimental value

Judgement of the mixture is based on the relevant ingredients
Conclusion
Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2 Persistence and degradability

triacetoxylethylsilane
Biodegradation water

Method	Value	Duration	Value determination
EU Method C.4	74 %; GLP	21 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Duration	Value determination
OECD 111: Hydrolysis as a function of pH	< 0.2 minutes	Primary degradation	Experimental value

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics
Biodegradation water

Method	Value	Duration	Value determination
OECD 306: Biodegradability in Seawater	74 %; GLP	28 day(s)	Experimental value

2-octyl-2H-isothiazol-3-one
Biodegradation water

Method	Value	Duration	Value determination
OECD 303A: Activated Sludge Units	> 83 %; Activated sludge		Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	0.272 day(s)	1500000 /cm ³	Calculated value

Conclusion

Contains non readily biodegradable component(s)

12.3 Bioaccumulative potential

High Modulus Silicone

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

triacetoxyethylsilane

Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN	Not applicable (mixture)	-1.9	20 °C	QSAR

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

2-octyl-2H-isothiazol-3-one

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		165	67 day(s)	Lepomis macrochirus	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
		2.45		Experimental value

Conclusion

Contains bioaccumulative component(s)

12.4 Mobility in soil

triacetoxyethylsilane

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1	Calculated value

hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	0.3 %		92.8 %	6.8 %	0.1 %	Experimental value

2-octyl-2H-isothiazol-3-one

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
2.07E-8 atm m ³ /mol		25 °C		Estimated value

Conclusion

Contains component(s) with potential for mobility in the soil

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

12.5 Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effect

High Modulus Silicone

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

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC). 08 04 10 (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants other than those mentioned in 08 04 09). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Recycle/reuse. Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 02 (plastic packaging).

Section 14: Transport information

Road (ADR)

14.1 UN number

Transport

Not subject

14.2 UN proper shipping name

14.3 Transport hazard class(es)

Hazard identification number

Class

Classification code

14.4 Packing group

Packing group

Labels

14.5 Environmental hazards

Environmentally hazardous substance mark

No

14.6 Special precautions for user

Special provisions

Limited quantities

Rail (RID)

14.1 UN number

Transport

Not subject

14.2 UN proper shipping name

14.3 Transport hazard class(es)

Hazard identification number

Class

Classification code

14.4 Packing group

Packing group

Labels

14.5 Environmental hazards

Environmentally hazardous substance mark

No

14.6 Special precautions for user

Special provisions

Limited quantities

Inland waterways (ADN)

14.1 UN number

Transport

Not subject

14.2 UN proper shipping name

14.3 Transport hazard class(es)

Class

Classification code

14.4 Packing group

Packing group

Labels

14.5 Environmental hazards

Environmentally hazardous substance mark

No

14.6 Special precautions for user

Special provisions

Limited quantities

Sea (IMDG/IMSBC)

14.1 UN number

Transport

Not subject

14.2 UN proper shipping name

14.3 Transport hazard class(es)

Class

14.4 Packing group

Packing group

Labels

14.5 Environmental hazards

Marine pollutant

Environmentally hazardous substance mark

No

14.6 Special precautions for user

Special provisions

Limited quantities

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

Annex II of MARPOL 73/78

Air (ICAO-TI/IATA-DGR)

14.1 UN number

Transport

Not subject

14.2 UN proper shipping name

14.3 Transport hazard class(es)

Class

14.4 Packing group

Packing group

Labels

14.5 Environmental hazards

Environmentally hazardous substance mark

No

14.6 Special precautions for user

Special provisions

Limited quantities: maximum net quantity per packaging

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
0 %	
0 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
triacetoxylethylsilane · hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics · 2-octyl-2H-isothiazol-3-one	<p>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:</p> <p>(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;</p> <p>(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;</p> <p>(c) hazard class 4.1;</p> <p>(d) hazard class 5.1.</p>	<p>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.</p> <p>2. Articles not complying with paragraph 1 shall not be placed on the market.</p> <p>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.</p> <p>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).</p> <p>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:</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

National legislation Belgium
 High Modulus Silicone
 No data available
 National legislation The Netherlands
 High Modulus Silicone

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 05
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National legislation France
 High Modulus Silicone
 No data available
 National legislation Germany
 High Modulus Silicone

WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
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triacetoxylethylsilane

TA-Luft	5.2.5; I
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hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

TA-Luft	5.2.5
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2-octyl-2H-isothiazol-3-one

TA-Luft	5.2.5; I
TRGS900 - Risiko der Fruchtschädigung	2-Octyl-2H-isothiazol-3-on; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	2-Octyl-2H-isothiazol-3-on; H; Hautresorptiv

National legislation United Kingdom
 High Modulus Silicone
 No data available
 Other relevant data
 High Modulus Silicone
 No data available
 hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics

TLV - Carcinogen	Mineral oil, poorly and mildly refined; A2
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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 headings 2 and 3:

H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
(*)	INTERNAL CLASSIFICATION BY OLYMPIC FIXINGS
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

2-octyl-2H-isothiazol-3-one	10	Acute	Customer information THOR (2014-10-27)
2-octyl-2H-isothiazol-3-one	1	Chronic	Customer information THOR (2014-10-27)

Specific concentration limits CLP

2-octyl-2H-isothiazol-3-one	C ≥ 0,05 %	Skin Sens. 1; H317	CLP Annex VI (ATP 0)
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Whilst every effort has been made to ensure the accuracy of the information supplied. F.H. Brundle cannot be held responsible for any errors or omissions. This product must only be employed for its original intended use. Any other use is wrong and potentially dangerous. Installation must be carried out in full compliance with current regulations. F.H. Brundle cannot be held liable for any damages resulting from wrongful, erroneous or negligent use.

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