

Product name: SILIKOFTAL® HTT

2.2 Label Elements



Signal Words: Warning

Hazard Statement(s):
 H226: Flammable liquid and vapor.
 H319: Causes serious eye irritation.
 H336: May cause drowsiness or dizziness.

Precautionary Statements

Prevention:
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
 P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313: If eye irritation persists: Get medical advice/attention.

Hazardous ingredients which must be listed on the label:

2-methoxy-1-methylethyl acetate

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

Chemical name:

Organo-modified polysiloxane in organic solvent

3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	UK-REACH Registration No.	REACH Registration No.	M-Factor:	Notes
2-methoxy-1-methylethyl acetate	20 - <50%	108-65-6	203-603-9		01-211947579 1-29	No data available.	#
Ethanol (Ethyl alcohol)	1 - <5%	64-17-5	200-578-6		01-211945761 0-43	No data available.	#
isobutanol	1 - <3%	78-83-1	201-148-0		01-211948460 9-23	No data available.	#
octamethyl	0.01 -	556-67-2	209-136-7	-	01-	Aquatic	##

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cyclotetrasiloxane	<0.1%				211952923 8-36	Toxicity (Chronic): 10	
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* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

This substance is listed as SVHC.

Classification

Chemical name	Classification	Notes
2-methoxy-1-methylethyl acetate	Classification: Flam. Liq.: 3: H226; STOT SE: 3: H336; Supplemental label information: None known.	None.
Ethanol (Ethyl alcohol)	Classification: Flam. Liq.: 2: H225; Eye Irrit.: 2: H319; Supplemental label information: None known.	None.
isobutanol	Classification: Flam. Liq.: 3: H226; Skin Irrit.: 2: H315; Eye Dam.: 1: H318; STOT SE: 3: H335 H336; Supplemental label information: None known.	None.
octamethylcyclotetrasiloxane	Classification: Flam. Liq.: 3: H226; Repr.: 2: H361f; Aquatic Chronic: 1: H410; Supplemental label information: None known.	None.

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures

General information:	Remove soiled or soaked clothing immediately
Inhalation:	fresh air supply, consult a doctor if feeling unwell.
Skin Contact:	In case of contact with skin wash off with soap and water. In case of discomfort: Supply with medical care.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.
Personal Protection for First-aid Responders:	No data available.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:	Depending on the dose inhalation and/or ingestion may cause: headache, inebriation, unconsciousness. Serious eye irritation
Hazards:	No data available.

4.3 Indication of immediate medical attention and special treatment needed

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Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing media: High volume water jet.

5.2 Special hazards arising from the substance or mixture:

In the event of fire the following can be released: - Carbon monoxide, carbon dioxide, silicon dioxide benzene Under certain conditions of combustion traces of other toxic substances cannot be excluded

5.3 Advice for firefighters

Special fire fighting procedures: Keep away from sources of ignition. Take action to prevent static discharges. Vapours may form explosive mixtures with air. Cool endangered containers by water spray

Special protective equipment for fire-fighters: Do not inhale explosion and/or combustion gases. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Ensure adequate ventilation. Keep away sources of ignition.

6.1.1 For non-emergency personnel: No data available.

6.1.2 For emergency responders: No data available.

6.2 Environmental Precautions: Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

6.3 Methods and material for containment and cleaning up: Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections: For further information on exposure monitoring and disposal see sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures: No data available.

Local/Total ventilation: No data available.

Safe handling advice: Provide good ventilation of working area (local exhaust ventilation if necessary). Use respiratory protection during spraying. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.

Contact avoidance measures: No data available.

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7.2 Conditions for safe storage, including any incompatibilities

Safe storage conditions: Keep container tightly closed in a cool, well-ventilated place.

Safe packaging materials: No data available.

7.3 Specific end use(s): No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

Chemical name	Type	Form of exposure	Exposure Limit Values		Source
2-methoxy-1-methylethyl acetate	TWA		50 ppm	274 mg/m ³	EH40 WEL (12 2011)
	STEL 15 minutes		100 ppm	548 mg/m ³	EH40 WEL (01 2020)
Ethanol (Ethyl alcohol)	TWA		1,000 ppm	1,920 mg/m ³	EH40 WEL (12 2011)
isobutanol	TWA		50 ppm	154 mg/m ³	EH40 WEL (12 2011)
	STEL 15 minutes		75 ppm	231 mg/m ³	EH40 WEL (01 2020)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

DNEL-Values

Remarks: DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
2-methoxy-1-methylethyl acetate	General population	Dermal	Systemic, long-term; 320 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 275 mg/m ³	irritation respiratory tract
	Workers	Dermal	Systemic, long-term; 796 mg/kg	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 36 mg/kg	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 33 mg/m ³	irritation respiratory tract
	General population	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	No hazard identified
	General population	Inhalation	Local, long-term; 33 mg/m ³	irritation respiratory tract
	Workers	Inhalation	Local, short-term; 550 mg/m ³	irritation respiratory tract
	Ethanol (Ethyl alcohol)	Workers	Inhalation	Local, short-term; 1900 mg/m ³
General population		Dermal	Systemic, long-term; 206 mg/kg	Repeated dose toxicity
General population		Inhalation	Systemic, long-term; 114 mg/m ³	Carcinogenicity
General population		Oral	Systemic, long-term; 87 mg/kg	Repeated dose toxicity
Workers		Dermal	Systemic, long-term; 343 mg/kg	Repeated dose toxicity
General population		Eyes	Local effect;	No hazard identified
Workers		Inhalation	Systemic, long-term; 950 mg/m ³	
General population		Inhalation	Local, short-term; 950 mg/m ³	irritation respiratory tract

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	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Eyes	Local effect;	No hazard identified
	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
	Workers	Inhalation	Systemic, long-term; 380 mg/m3	Carcinogenicity
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
isobutanol	General population	Inhalation	Local, long-term; 55 mg/m3	
	Workers	Eyes	Local effect;	Medium hazard (no threshold derived)
	Workers	Inhalation	Local, long-term; 310 mg/m3	
	General population	Eyes	Local effect;	Medium hazard (no threshold derived)
octamethylcyclotetrasiloxane	General population	Eyes	Local effect;	No hazard identified
	General population	Inhalation	Local, long-term; 13 mg/m3	Repeated dose toxicity
	Workers	Inhalation	Systemic, long-term; 73 mg/m3	Repeated dose toxicity
	General population	Inhalation	Systemic, long-term; 13 mg/m3	Repeated dose toxicity
	General population	Oral	Systemic, long-term; 3.7 mg/kg	Repeated dose toxicity
	Workers	Inhalation	Local, long-term; 73 mg/m3	Repeated dose toxicity
	Workers	Eyes	Local effect;	No hazard identified

PNEC-Values

Remarks: PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
2-methoxy-1-methylethyl acetate	Aquatic (marine water)	0.064 mg/l	
	Sewage treatment plant	100 mg/l	
	Sediment (marine water)	0.329 mg/kg	
	Aquatic (freshwater)	0.635 mg/l	
	Soil	0.29 mg/kg	Soil
	Sediment (freshwater)	3.29 mg/kg	
	Sewage treatment plant	580 mg/l	
Ethanol (Ethyl alcohol)	Soil	0.63 mg/kg	Soil
	Aquatic (freshwater)	0.96 mg/l	
	Predator	0.38 g/kg	Oral
	Aquatic (marine water)	0.79 mg/l	
	Predator	0.72 g/kg	Oral
	Sediment (freshwater)	3.6 mg/kg	
	Sediment (marine water)	2.9 mg/kg	
	isobutanol	Soil	0.076 mg/kg
Sediment (marine water)		0.156 mg/kg	
Sediment (freshwater)		1.56 mg/kg	
Aquatic (freshwater)		0.4 mg/l	
Aquatic (marine water)		0.04 mg/l	
	Sewage treatment plant	10 mg/l	
	Sediment (freshwater)	3 mg/kg	
octamethylcyclotetrasiloxane	Aquatic (freshwater)	1.5 µg/l	
	Soil	0.84 mg/kg	Soil
	Aquatic (marine water)	0.15 µg/l	
	Sewage treatment plant	10 mg/l	
	Predator	41 mg/kg	Oral
	Sediment (marine water)	0.3 mg/kg	

8.2 Exposure controls
Appropriate Engineering Controls: No data available.

Individual protection measures, such as personal protective equipment
Eye/face protection: Safety glasses

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Hand Protection:	Material: Nitrile rubber. Break-through time: 480 min Glove thickness: 0.11 mm Material: Natural rubber. Break-through time: 480 min Glove thickness: 0.5 mm Material: Chloroprene Break-through time: 480 min Glove thickness: 0.65 mm Material: Butyl rubber. Break-through time: 480 min Glove thickness: 0.7 mm
Skin and Body Protection:	protective clothing
Respiratory Protection:	in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2
Hygiene measures:	Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Remove soiled or soaked clothing immediately.
Environmental Controls:	The environmental regulations on the control and monitoring of environmental exposures are to be observed.

SECTION 9: Physical and chemical properties
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9.1 Information on basic physical and chemical properties
Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Characteristic
Odor Threshold:	not measured
Freezing point:	not measured
Boiling Point:	not measured
Flammability:	not measured
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	not measured
Explosive limit - lower:	not measured
Flash Point:	30 °C Method: DIN EN ISO 2719
Auto-ignition temperature:	not measured
Decomposition Temperature:	not measured
pH:	4.5 at 20 °C Concentration: 100 g/l Concentration: 10 % in Water

Viscosity

Dynamic viscosity:	1,600 - 2,800 mPa.s at 25 °C Method: DIN 53019
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Kinematic viscosity:	1460 - 1947 mm ² /s at 25 °C , Method: calculated
Solubility(ies)	
Solubility in Water:	partly soluble
Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	not measured
Relative density:	not measured
Density:	1.13 g/cm ³ at 25 °C
Relative vapor density:	not measured

9.2 Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Self-ignition:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

SECTION 10: Stability and reactivity

10.1 Reactivity:	see section "Possibility of hazardous reactions".
10.2 Chemical Stability:	The product is stable under normal conditions.
10.3 Possibility of hazardous reactions:	No hazardous reactions with proper storage and handling
10.4 Conditions to avoid:	Open flames, sparks or input of much heat
10.5 Incompatible Materials:	Not known.
10.6 Hazardous Decomposition Products:	None with proper storage and handling.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure**

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.
Eye contact:	Information on effects are given below.
Ingestion:	Information on effects are given below.

Acute toxicity (list all possible routes of exposure)**Oral**

Product:	Not classified for acute toxicity based on available data.
Components:	

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2-methoxy-1-methylethyl acetate	LD 50, Rat, Female, Male, 6,190 mg/kg, OECD 401 LD 50, Rat, Male, 6,190 - 10,000 mg/kg, OECD 401 LD 50, Rat, Female, 5,155 mg/kg, OECD 401
Ethanol (Ethyl alcohol)	LD 50, Rat, Female, Male, 10,470 mg/kg, OECD 401, Not toxic after single exposure
isobutanol	LD 50, Rat, Male, > 2,830 mg/kg, OECD 401, Literature LD 50, Rat, Female, 3,350 mg/kg, OECD 401, Literature
octamethylcyclotetrasiloxane	LD 50, Rat, Male, > 5,000 mg/kg, OECD 401

Dermal

Product: Not classified for acute toxicity based on available data.

Components:

2-methoxy-1-methylethyl acetate	LD 50, Rabbit, Female, Male, > 5,000 mg/kg, OECD 402
Ethanol (Ethyl alcohol)	LD 50, Rabbit, > 20,000 mg/kg, Not toxic after single exposure, (analogy)
isobutanol	LD 50, Rabbit, Female, 2,460 mg/kg, OECD 402, Literature LD 50, Rabbit, Male, > 2,000 mg/kg, OECD 402, Literature
octamethylcyclotetrasiloxane	LD 50, Rat, Female, Male, > 5,000 mg/kg, OECD 402

Inhalation

Product: Not classified for acute toxicity based on available data.

Components:

2-methoxy-1-methylethyl acetate	LC 50, Rat, 4 h, > 35.7 mg/l, Vapour Dust and mist, Not toxic after single exposure, No data available.
Ethanol (Ethyl alcohol)	LC 50, Rat, Female, Male, 4 h, 124.7 mg/l, OECD 403, Not toxic after single exposure, Vapour Not toxic after single exposure, Not applicable, Dust and mist
isobutanol	Not toxic after single exposure, No classification, Vapour Not toxic after single exposure, No data available., Dust and mist
octamethylcyclotetrasiloxane	LC 50, Rat, Female, Male, 4 h, 36 mg/l, OECD 403, Vapour Not toxic after single exposure, Dust and mist, No data available.

Repeated dose toxicity

Product: No data available.

Components:

2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	No data available.
isobutanol	No data available.
octamethylcyclotetrasiloxane	NOAEC, Rat, Female, Male, Inhalation, Vapour, 5 days/weeks, 6 hours/day, 1.8 mg/l, Subchronic toxicity LOAEC, Rat, Female, Male, Inhalation, Vapour, 5 days/weeks, 6 hours/day, 8.5 mg/l, chronic NOAEC, Rat, Female, Male, Inhalation, Vapour, 5 days/weeks, 6 hours/day, 0.36 mg/l, Subacute toxicity

Skin Corrosion/Irritation

Product: No data available.

Components:

2-methoxy-1-methylethyl acetate	Not irritating, OECD 404, Rabbit
Ethanol (Ethyl alcohol)	Not irritating, OECD 404, Rabbit
isobutanol	Irritating., EU-CLP as per Regulation (EU) No. 1272/2008, Annex VI
octamethylcyclotetrasiloxane	Not irritating, OECD 404, Rabbit

Serious Eye Damage/Eye Irritation

Product name: SILIKOFTAL® HTT

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	Not irritating, OECD 405, Rabbit
Ethanol (Ethyl alcohol)	Irritating., OECD 405, Rabbit
isobutanol	Risk of serious damage to eyes., OECD 405, Rabbit, 24 h, Literature
octamethylcyclotetrasiloxane	Not irritating, OECD 405, Rabbit

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer.
Ethanol (Ethyl alcohol)	Maximization Test, OECD 406, Guinea pig, Not a skin sensitizer. Respiratory sensitizer, Rat, Not a respiratory sensitizer
isobutanol	Sensitization test, QSAR, Not a skin sensitizer.
octamethylcyclotetrasiloxane	Magnussona i Kligmana., OECD 406, Rabbit, Not a skin sensitizer. Sensitization test, Human, Not a skin sensitizer. Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer.

Carcinogenicity

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	Not classified
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

Germ Cell Mutagenicity

No data available.

In vitro

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	Ames test, OECD 471: , negative, (analogy) gene mutation test, OECD 476: , negative, (analogy)
isobutanol	No data available.
octamethylcyclotetrasiloxane	Ames test, OECD 471: , negative Chromosomal aberration, OECD 473: , negative gene mutation test, OECD 476: , negative

In vivo

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	Chromosomal aberration, OECD 478, Oral, Mouse, Male, negative
isobutanol	No data available.

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octamethylcyclotetrasiloxane	Micronucleus test, OECD 474, Inhalation - vapor, Rat, negative Chromosomal aberration, OECD 478, Oral, Rat, negative Chromosomal aberration, OECD 475, Inhalation - vapor, Rat, Female, Male, negative
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Reproductive toxicity

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	Not classified
isobutanol	No data available.
octamethylcyclotetrasiloxane	Suspected of damaging fertility or the unborn child. Suspected of damaging fertility.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	Inhalation - vapor, Central nervous system., Category 3 with narcotic effects.
Ethanol (Ethyl alcohol)	No data available.
isobutanol	Inhalation - vapor, Respiratory system, Category 3 with respiratory tract irritation. Inhalation - vapor, Central nervous system., Category 3 with narcotic effects.
octamethylcyclotetrasiloxane	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	No data available.
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

Aspiration Hazard

Product:	Not classified
Components:	
2-methoxy-1-methylethyl acetate	Not classified
Ethanol (Ethyl alcohol)	Not classified
isobutanol	Not classified
octamethylcyclotetrasiloxane	Not classified

11.2 Information on other hazards
Other information

Product:	No data available.
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SECTION 12: Ecological information

Product name: SILIKOFTAL® HTT

12.1 Toxicity:
Acute hazards to the aquatic environment:
Fish

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	LC 50, Oncorhynchus mykiss, 96 h, > 100 - 180 mg/l OECD 203 NOEC, Oncorhynchus mykiss, 96 h, 100 mg/l OECD 203
Ethanol (Ethyl alcohol)	LC 50, Pimephales promelas, 96 h, 11,200 mg/l US-EPA-method
isobutanol	LC 50, Pimephales promelas, 96 h, 1,430 mg/l, Literature
octamethylcyclotetrasiloxane	LC 50, Oncorhynchus mykiss, 96 h, > 22 µg/l US-EPA-method NOEC, Oncorhynchus mykiss, 96 h, 22 µg/l US-EPA-method

Aquatic Invertebrates

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	EC 50, Daphnia magna, 48 h, > 500 mg/l Tested according to Annex V of Directive 67/548/EEC.
Ethanol (Ethyl alcohol)	LC 50, Ceriodaphnia dubia, 48 h, 5,012 mg/l
isobutanol	EC 50, Daphnia pulex, 48 h, 1,100 mg/l, Literature
octamethylcyclotetrasiloxane	NOEC, Daphnia magna, 48 h, 15 µg/l US-EPA-method EC 50, Daphnia magna, 48 h, > 15 µg/l US-EPA-method

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 1,000 mg/l (OECD 201)
Ethanol (Ethyl alcohol)	EC 50 (Chlorella vulgaris (Fresh water algae), 72 h): 275 mg/l (OECD 201)
isobutanol	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 632 mg/l (OECD 201) Literature EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 1,799 mg/l (OECD 201)
octamethylcyclotetrasiloxane	EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 22 µg/l (US-EPA-method) EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 22 µg/l (US-EPA-method)

Toxicity to microorganisms

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	EC 10, activated sludge, 0.5 h, > 1,000 mg/l, OECD 209
Ethanol (Ethyl alcohol)	IC 50, activated sludge, 3 h, > 1,000 mg/l, OECD 209, (analogy)
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

Toxicity to soil dwelling organisms

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	No data available.
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

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Toxicity to terrestrial organisms

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	No data available.
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

Chronic hazards to the aquatic environment:
Fish

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	NOEC, <i>Oryzias latipes</i> , 14 d, 47.5 mg/l, OECD 204 LC 50, <i>Oryzias latipes</i> , 14 d, 63.5 mg/l, OECD 204
Ethanol (Ethyl alcohol)	NOEC, <i>Danio rerio</i> , 120 h, 1,000 mg/l, OECD 212
isobutanol	No data available.
octamethylcyclotetrasiloxane	NOEC, <i>Oncorhynchus mykiss</i> , 93 d, 4.4 µg/l, US-EPA-method

Aquatic Invertebrates

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	NOEC, <i>Daphnia magna</i> , 21 d, 100 mg/l, OECD 211 EC 50, <i>Daphnia magna</i> , 21 d, > 100 mg/l, OECD 211
Ethanol (Ethyl alcohol)	LC 50, <i>Ceriodaphnia dubia</i> , 10 d, 1,806 mg/l NOEC, <i>Ceriodaphnia dubia</i> , 10 d, 9.6 mg/l LC 50, <i>Daphnia magna</i> , 2 d, 9,248 mg/l LC 50, <i>Daphnia magna</i> , 9 d, 454 mg/l NOEC, <i>Daphnia magna</i> , 9 d, 9.6 mg/l
isobutanol	NOEC, <i>Daphnia magna</i> , 21 d, 20 mg/l
octamethylcyclotetrasiloxane	NOEC, <i>Daphnia magna</i> , 21 d, 15 µg/l, EPA OTS 797.1330 Lowest Observed Effect Concentration, <i>Daphnia magna</i> , 21 d, 15 µg/l, EPA OTS 797.1330 EC 50, <i>Daphnia magna</i> , 21 d, > 15 µg/l, EPA OTS 797.1330

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	NOEC (Algae (<i>Pseudokirchneriella subcapitata</i>), 96 h): 1,000 mg/l (OECD 201)
Ethanol (Ethyl alcohol)	No data available.
isobutanol	NOEC (Algae (<i>Pseudokirchneriella subcapitata</i>), 72 h): 53 mg/l (OECD 201) Literature
octamethylcyclotetrasiloxane	NOEC (Algae (<i>Pseudokirchneriella subcapitata</i>), 96 h): < 22 µg/l (US-EPA-method)

Toxicity to microorganisms

Product:	No data available.
Components:	
2-methoxy-1-methylethyl acetate	EC 10, activated sludge, 0.5 h, > 1,000 mg/l, OECD 209
Ethanol (Ethyl alcohol)	IC 50, activated sludge, 3 h, > 1,000 mg/l, OECD 209, (analogy)
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

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Toxicity to soil dwelling organisms

Product: No data available.

Components:

2-methoxy-1-methylethyl acetate No data available.
 Ethanol (Ethyl alcohol) No data available.
 isobutanol No data available.
 octamethylcyclotetrasiloxane No data available.

Toxicity to terrestrial organisms

Product: No data available.

Components:

2-methoxy-1-methylethyl acetate No data available.
 Ethanol (Ethyl alcohol) No data available.
 isobutanol No data available.
 octamethylcyclotetrasiloxane No data available.

12.2 Persistence and Degradability
Biodegradation

Product: No data available.

Components:

2-methoxy-1-methylethyl acetate 83 %, 28 d, OECD 301 F, The product is easily biodegradable., aerobic
 Ethanol (Ethyl alcohol) 84 %, 20 d, The product is easily biodegradable., aerobic
 isobutanol 70 - 80 %, 28 d, OECD 301 D, The product is easily biodegradable., aerobic
 octamethylcyclotetrasiloxane 3.7 %, 28 d, OECD 310, The product is not biodegradable., aerobic

BOD/COD Ratio

Components:

Ethanol (Ethyl alcohol) 58 %

12.3 Bioaccumulative potential
Bioconcentration Factor (BCF)

Product: No data available.

Components:

2-methoxy-1-methylethyl acetate No data available.
 Ethanol (Ethyl alcohol) No data available.
 isobutanol No data available.
 octamethylcyclotetrasiloxane No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: not measured

Components:

2-methoxy-1-methylethyl acetate No data available.
 Ethanol (Ethyl alcohol) -0.35, 20 °C
 isobutanol 1, 25 °C, HPLC-Method, Literature
 octamethylcyclotetrasiloxane 6.488, 25.1 °C, OECD 123

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12.4 Mobility in soil:

Product	No data available.
Components:	
2-methoxy-1-methylethyl acetate	No data available.
Ethanol (Ethyl alcohol)	No data available.
isobutanol	No data available.
octamethylcyclotetrasiloxane	No data available.

12.5 Results of PBT and vPvB assessment:

Product	No data available.
Components:	
2-methoxy-1-methylethyl acetate	Non-classified vPvB substance, Non-classified PBT substance
Ethanol (Ethyl alcohol)	Non-classified vPvB substance, Non-classified PBT substance
isobutanol	No data available.
octamethylcyclotetrasiloxane	PBT: persistent, bioaccumulative and toxic substance. vPvB: very persistent and very bioaccumulative substance.

12.6 Other adverse effects:

Other hazards

Product: Do not allow to enter soil, waterways or waste water canal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:	No data available.
Disposal methods:	In accordance with local authority regulations, take to special waste incineration plant
Contaminated Packaging:	If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

SECTION 14: Transport information

14.1 UN/ID No.

ADR	: UN 1866
RID	: UN 1866
IMDG	: UN 1866
IATA	: UN 1866

14.2 UN proper shipping name

ADR	: RESIN SOLUTION
RID	: RESIN SOLUTION

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IMDG : RESIN SOLUTION**IATA** : Resin solution**14.3 Transport hazard class(es)****ADR** : 3**RID** : 3**IMDG** : 3**IATA** : 3**14.4 Packing group****ADR**Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)**RID**Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3**IMDG**Packing group : III
Labels : 3
EmS Code : F-E, S-E
Remarks : Stowage category A**IATA (Cargo aircraft only)**Packing instruction (cargo aircraft) : 366
Packing instruction (LQ) : Y344
Packing group : III
Labels : 3**IATA (Passenger and cargo aircraft)**Packing instruction (passenger aircraft) : 355
Packing instruction (LQ) : Y344
Packing group : III
Labels : 3**14.5 Environmental hazards****ADR**

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation

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classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
EU Regulations

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:

Classification	Lower-tier Requirements	Upper-tier Requirements
P5c. Flammable liquids	5,000 t	50,000 t

15.2 Chemical safety assessment: No chemical safety assessment was carried out for this product.

International regulations
Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

SECTION 16: Other information
Abbreviations and acronyms:

EH40 WEL: UK. EH40 Workplace Exposure Limits (WELs), as amended
 EH40 WEL / STEL: Short Term Exposure Limit (STEL);
 EH40 WEL / TWA: Time Weighted Average (TWA);

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; EIGA - European Industrial Gases Association; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory;

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LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Key literature references and sources for data: No data available.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No 1272/2008 as amended.	Classification procedure
Flammable liquids, Category 3	On basis of test data
Serious eye irritation, Category 2	On basis of test data
Specific Target Organ Toxicity - Single Exposure, Category 3	Calculation method

Wording of the statements in section 2 and 3

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.

Training information: Comply with national laws regulating employee instruction.

Revision Information Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Disclaimer: This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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