

Safety Data Sheet

according to UK REACH Regulation

GYEON Q2 Repel

Revision date: 01.09.2021

Product code: G0015

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

GYEON Q2 Repel

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Vehicle protective product - coating designed for glass.
 Enthusiasts and professional use (End consumer)

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet**Manufacturer**

Company name:	Gyeon Technology	
Street:	1405-538, 212, Gasan digital 1-ro	
Place:	Geumcheon-gu, Seoul, Korea	
Telephone:	+82-10-4339-3599	
Contact person:	Robert Gyeon	
e-mail:	sales@gyeonquartz.com	
Responsible Department:	Dr. Gans-Eichler	e-mail: info@tge-consult.de
	Chemieberatung GmbH	Tel.: +49(0)2534 6441185
	Otto-Hahn-Str. 36	www.tge-consult.de
	D-48161 Münster	

Supplier

Company name:	Gyeon UK Ltd	
Street:	20 Crichtiebank Business Centre, Mill Road	
Place:	GB-AB51 5NQ Inverurie	
e-mail:	hello@gyeonquartz.uk	
Contact person:	Richard Cooper	Telephone: +44 (0)7984 056790

1.4. Emergency telephone number:

+82-10-4339-3599

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye damage.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

2.2. Label elements**GB CLP Regulation**

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Hazard components for labelling

propan-2-ol; isopropyl alcohol; isopropanol
 Trimethoxy(1H,1H,2H,2H-heptadecafluorodecyl)silane

Signal word: Danger**Pictograms:****Hazard statements**

H225 Highly flammable liquid and vapour.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.
 The mixture contains the following substances fulfilling the PBT-/vPvB criteria according to REACH Annex XIII:
 Decamethylcyclopentasiloxane (CAS: 541-02-6; 20.06.2018) octamethylcyclotetrasiloxane; [D4] (CAS: 556-67-2; 27.06.2018)

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			40 - < 45 %
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
69430-37-1	Aminoalkoxydimethylpolysiloxane			35 - < 40 %
	628-867-6			
	Flam. Liq. 2, Skin Irrit. 2, Eye Irrit. 2; H225 H315 H319			
541-02-6	Decamethylcyclotetrasiloxane			15 - < 20 %
	208-764-9			
83048-65-1	Trimethoxy(1H,1H,2H,2H-heptadecafluorodecyl)silane			3 - < 5 %
	Skin Corr. 1B; H314			
67-56-1	methanol			1 - < 3 %
	200-659-6	603-001-00-X		
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370			
64741-66-8	Naphtha (petroleum), light alkylate; Low boiling point modified naphtha			1 - < 3 %
	265-068-8	649-276-00-X		
	Asp. Tox. 1; H304			
556-67-2	octamethylcyclotetrasiloxane			0.3 - < 0.5 %
	209-136-7	014-018-00-1		
	Repr. 2, Aquatic Chronic 1; H361f H410			
108-88-3	toluene			0.2 - < 0.3 %
	203-625-9	601-021-00-3		
	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304			
107-46-0	Hexamethyldisiloxane			0.2 - < 0.3 %
	203-492-7			
	Flam. Liq. 2, Aquatic Acute 1, Aquatic Chronic 2; H225 H400 H411			

Full text of H and EUH statements: see section 16.

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	40 - < 45 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg	
69430-37-1	628-867-6	Aminoalkoxydimethylpolysiloxane	35 - < 40 %
		oral: LD50 = >5000 mg/kg	
541-02-6	208-764-9	Decamethylcyclopentasiloxane	15 - < 20 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
67-56-1	200-659-6	methanol	1 - < 3 %
		inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: ATE = 100 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10	
556-67-2	209-136-7	octamethylcyclotetrasiloxane	0.3 - < 0.5 %
		M chron.; H410: M=10	
108-88-3	203-625-9	toluene	0.2 - < 0.3 %
		inhalation: LC50 = (28,1) mg/l (vapours); dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg	

Further Information

Naphtha (petroleum), light alkylate; Low boiling point modified naphtha

Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7).

This substance has been listed as SVHC (substance of very high concern) in the Candidate List according to Article 59 of REACH.:

Decamethylcyclopentasiloxane (CAS: 541-02-6; 20.06.2018)

octamethylcyclotetrasiloxane; [D4] (CAS: 556-67-2; 27.06.2018)

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Take off immediately all contaminated clothing.

First aider: Pay attention to self-protection!

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Take off immediately all contaminated clothing. Wash with plenty of water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting.

Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Dry extinguishing powder. alcohol resistant foam.
In case of major fire and large quantities: Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Gas/vapours, irritant. Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General measures**

Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

For non-emergency personnel

Remove persons to safety. Remove all sources of ignition. Ventilate affected area.

Wear personal protection equipment. (See section 8.)

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion! Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up**For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.

Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep away from sources of ignition. - No smoking. (See section 8.)

Avoid contact with skin, eyes and clothes.

Do not mix with other chemicals.!

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Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Flammable vapours can accumulate in head space of closed systems. In use, may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

Advice on general occupational hygiene

The usual precautions for handling chemicals should be considered. Keep away from food, drink and animal feedingstuffs. Always close containers tightly after the removal of product. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing and wash it before reuse.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in the original container.
Keep container tightly closed in a cool, well-ventilated place.
Protect against direct sunlight.
Ensure adequate ventilation of the storage area.
Unsuitable materials for Container: Aluminium.

Hints on joint storage

Do not store together with: Gas. Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. ammonium nitrate. Self-reactive substances and mixtures. Organic peroxides. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Protect against: UV-radiation/sunlight. heat. Humidity frost.
storage temperature: 15-25°C

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL
108-88-3	Toluene	50	191		TWA (8 h)	WEL
		100	384		STEL (15 min)	WEL

8.2. Exposure controls



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Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation as well as local exhaust at critical locations.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Recommended eye protection brand: Tightly sealed safety glasses. (BS/EN 166)

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

Suitable material: Butyl rubber.

Thickness of glove material: 0,5 mm

Breakthrough time \geq 480 min. penetration time (maximum wearing period): ~ 120 min. (estimated)

In the case of wanting to use the gloves again, clean them before taking off and air them well. Before using check leak tightness / impermeability.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Skin protection

Wear fire/ flame resistant/retardant clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Generation/formation of aerosols

Exceeding exposure limit values

Insufficient ventilation

Suitable respiratory protective equipment: Combination filtering device (EN 14387) Type: A/P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

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

Physical state:	liquid.
Colour:	not determined
Odour:	characteristic

Test method**Changes in the physical state**

Melting point/freezing point: not determined

Boiling point or initial boiling point and boiling range: 75 °C

Sublimation point: not determined

Flash point: 13 °C ISO 3679

Flash point: 13 °C ISO 3679

Explosive properties

In use, may form flammable/explosive vapour-air mixture.

Lower explosion limits: 2 (IPA)

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Upper explosion limits:	12 (IPA)
Auto-ignition temperature:	425 (IPA) °C
Decomposition temperature:	not determined

Oxidizing properties

none.

pH-Value:	7,5-8,5
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Viscosity / dynamic: (at 40 °C)	not determined
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Viscosity / kinematic: (at 20 °C)	not determined
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Flow time:	not determined
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Water solubility:	not miscible - partially miscible
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Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	SECTION 12: Ecological information
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Vapour pressure: (at 20 °C)	42 (IPA) hPa
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Density:	0,85-0,90 g/cm³
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Relative vapour density:	not determined
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9.2. Other information**Other safety characteristics**

Solvent separation test:	not determined
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Solvent content:	not determined
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Solid content:	not determined
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Evaporation rate:	not determined
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Further Information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Refer to chapter 10.5.

10.4. Conditions to avoid

Keep away from heat. Danger of explosion!

In use may form flammable/explosive vapour-air mixture.

Heating causes rise in pressure with risk of bursting.

10.5. Incompatible materials

Reducing agents.

Oxidizing agents.

acid.

alkali.

Aluminium.

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aldehydes.
amines.
Sulfuric acid.
Iron.
Phosgene.
Hydrogenium peroxide.
Chlorates.
Do not mix with other chemicals.!

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO₂). Fluorhydric acid.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicokinetics, metabolism and distribution

No data available.

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 >5000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 >5000 mg/kg	Rabbit	ECHA Dossier	
69430-37-1	Aminoalkoxydimethylpolysiloxane				
	oral	LD50 >5000 mg/kg	Rat.	read across	
541-02-6	Decamethylcyclopentasiloxane				
	oral	LD50 > 5000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 > 2000 mg/kg	Rabbit	ECHA Dossier	
67-56-1	methanol				
	oral	ATE 100 mg/kg			
	dermal	ATE 300 mg/kg			
	inhalation vapour	ATE 3 mg/l			
	inhalation aerosol	ATE 0,5 mg/l			
108-88-3	toluene				
	oral	LD50 >5000 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 >5000 mg/kg	Rabbit	ECHA Dossier	
	inhalation (4 h) vapour	LC50 (28,1) mg/l	Rat	ECHA Dossier	

Irritation and corrosivity

Causes skin irritation.
Causes serious eye damage.

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Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

propan-2-ol; isopropyl alcohol; isopropanol (CAS-No.: 67-63-0):

OECD Guideline 471 (Bacterial Reverse Mutation Assay) = negative., AllgK267153: ECHA Dossier; OECD

Guideline 474 (Mammalian Erythrocyte Micronucleus Test) = negative., Literature information: ECHA Dossier;

No indications of human carcinogenicity exist., Literature information: ECHA Dossier; Reproductive toxicity:

Method: OECD Guideline 415 (One-Generation Reproduction Toxicity Study); Species: Rat ; Result: NOAEL = 853 mg/kg; Literature information: ECHA Dossier; Developmental toxicity/teratogenicity: Method: (oral.)

OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rabbit ; Result: NOAEL = 480 mg/kg;

Literature information: ECHA Dossier

Distillates (petroleum), hydro-treated light; Kerosine - unspecified:

In vitro mutagenicity/genotoxicity:

Method:

-OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)

-OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Result: negative.

Literature information: ECHA Dossier

In vivo mutagenicity/genotoxicity:

Method:

-OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)

-OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)

Result: negative.

Literature information: ECHA Dossier

Reproductive toxicity

Method:-

Species: Sprague-Dawley Rat

Exposure route : oral

Result: NOAEL > 1500 mg/kg

Literature information: ECHA Dossier

Developmental toxicity/teratogenicity

Method:OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Species: Sprague-Dawley Rat

Exposure route : oral

Result: NOAEL = 1000 mg/kg

Literature information: ECHA Dossier

STOT-single exposure

May cause drowsiness or dizziness. (propan-2-ol; isopropyl alcohol; isopropanol)

STOT-repeated exposure

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Based on available data, the classification criteria are not met.
propan-2-ol; isopropyl alcohol; isopropanol (CAS-No.: 67-63-0):
Chronic inhalative toxicity (Rat): NOAEC = 5000 ppm (OECD 451), Literature information: ECHA Dossier

Distillates (petroleum), hydro-treated light; Kerosine - unspecified:
Subchronic oral toxicity:

Method:-

Species: Sprague-Dawley Rat

Exposure duration: 90d

Result: NOAEL = 750 mg/kg

Literature information: ECHA Dossier

Subchronic inhalation toxicity :

Method: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day)

Species: Mouse

Exposure duration: 90d

Result: NOAEC = 1000 mg/kg

Literature information: ECHA Dossier

Subchronic oral toxicity:

Method: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Species: Sprague-Dawley Rat

Exposure duration: 28d

Result: NOAEC = 0,5 ml/kg

Literature information: ECHA Dossier

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available.

11.2. Information on other hazards**Endocrine disrupting properties**

No data available.

SECTION 12: Ecological information**12.1. Toxicity**

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas	ECHA Dossier OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	1800		Scenedesmus quadricauda	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	>10000	48 h	Daphnia magna (24h)	ECHA Dossier OECD Guideline 202
541-02-6	Decamethylcyclopentasiloxane					
	Acute fish toxicity	LC50 mg/l	[> 0,019]	96 h	Oncorhynchus mykiss (Rainbow trout)	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	[> 0,0129]	96 h	Pseudokirchneriella subcapitata	ECHA Dossier
	Acute crustacea toxicity	EC50 mg/l	[> 0,0029]	48 h	Daphnia magna	ECHA Dossier
	Fish toxicity	NOEC mg/l	[0,0149]	90 d	Oncorhynchus mykiss (Rainbow trout)	ECHA Dossier
	Algae toxicity	NOEC mg/l	[> 0,0129]	4 d	Pseudokirchneriella subcapitata	ECHA Dossier
67-56-1	methanol					
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	22000	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7 OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989) DIN 38412 Teil 11
108-88-3	toluene					
	Acute fish toxicity	LC50 mg/l	(5,5)	96 h	Oncorhynchus kisutch	ECHA Dossier
	Acute algae toxicity	ErC50 mg/l	(12,5)	72 h		GESTIS
	Acute crustacea toxicity	EC50 mg/l	(3,78)	48 h	Ceriodaphnia dubia	ECHA Dossier
	Acute bacteria toxicity	(134 mg/l)		3 h	Chlorella vulgaris and Chlamydomonas angulosa	ECHA Dossier

12.2. Persistence and degradability

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	EU Method C.5/ EU Method C.6	53%	5	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
541-02-6	Decamethylcyclopentasiloxane			
	OECD Guideline 310	0,14%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
67-56-1	methanol			
	other guideline	76%	20	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
541-02-6	Decamethylcyclopentasiloxane	8,023
67-56-1	methanol	-0,77
108-88-3	toluene	2,73

BCF

CAS No	Chemical name	BCF	Species	Source
541-02-6	Decamethylcyclopentasiloxane	7060	Pimephales promelas	ECHA Dossier
67-56-1	methanol	1	Cyprinus carpio	Comparative Biochemi

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The mixture contains the following substances fulfilling the PBT-/vPvB criteria according to REACH Annex XIII:
Decamethylcyclopentasiloxane (CAS: 541-02-6; 20.06.2018) octamethylcyclotetrasiloxane; [D4] (CAS: 556-67-2; 27.06.2018)

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

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List of Wastes Code - used product

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging


150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging


Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	UN 1993
<u>14.2. UN proper shipping name:</u>	FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol; isopropanol, Aminoalkoxydimethylpolysiloxane)
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3
	
Classification code:	F1
Special Provisions:	274 601 640D
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	UN 1993
<u>14.2. UN proper shipping name:</u>	FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol; isopropanol, Aminoalkoxydimethylpolysiloxane)
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3
	
Classification code:	F1
Special Provisions:	274 601 640D
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	UN 1993
<u>14.2. UN proper shipping name:</u>	FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol; isopropanol, Aminoalkoxydimethylpolysiloxane)
<u>14.3. Transport hazard class(es):</u>	3

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14.4. Packing group: II
 Hazard label: 3



Marine pollutant: YES
 Special Provisions: 274
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol; isopropanol, Aminoalkoxydimethylpolysiloxane)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Special Provisions: A3
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 353
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: octamethylcyclotetrasiloxane

14.6. Special precautions for user

Refer to section 6-8

14.7. Maritime transport in bulk according to IMO instruments

not relevant.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

Decamethylcyclopentasiloxane; octamethylcyclotetrasiloxane

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 48, Entry 69, Entry 70

2010/75/EU (VOC): not determined

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2004/42/EC (VOC):	not determined
Information according to 2012/18/EU (SEVESO III):	E2 Hazardous to the Aquatic Environment
Additional information:	P5c

Additional information

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 This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].
 2012/18/CE (SEVESO III) Annex I, Part 1: P5c
 UK REACH Appendix XVII, No (mixture): 3, 29, 40, 48, 69, 70

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	3 - highly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

Rev. 1.0; 10.06.2015, Initial release
 Rev. 1.1; 01.09.2016, Changes in chapter: 1, 16.
 Rev. 2.0; 12.05.2020, Revision, Changes in chapter: 1, 16.
 Rev. 2.1; 08.02.2021, Revision
 Rev. 3.0; 20.05.2021, Revision, Changes in chapter: 1-16.
 Rev. 3.1; 01.09.2021, Revision 2,3,15,16

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 CAS: Chemical Abstracts Service
 CLP: Classification, Labelling and Packaging of substances and mixtures
 DNEL: Derived No Effect Level
 d: day(s)
 EINECS: European INventory of Existing Commercial chemical Substances
 ELINCS: European List of Notified Chemical Substances
 ECHA: European Chemicals Agency
 EWC: European Waste Catalogue
 IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 h: hour
 LOAEL: Lowest observed adverse effect level
 LOAEC: Lowest observed adverse effect concentration
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 NOAEL: No observed adverse effect level
 NOAEC: No observed adverse effect concentration
 NLP: No-Longer Polymers
 N/A: not applicable

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OECD: Organisation for Economic Co-operation and Development
 PNEC: predicted no effect concentration
 PBT: Persistent bioaccumulative toxic
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 REACH: Registration, Evaluation, Authorisation of Chemicals
 SVHC: substance of very high concern
 TRGS: Technische Regeln für Gefahrstoffe
 UN: United Nations
 VOC: Volatile Organic Compounds

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H336	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic 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.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:
 Health hazards: Calculation method.
 Environmental hazards: Calculation method.
 Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)