Safety Data Sheet
Hempel´s Silic One Tiecoat

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830 - United Kingdom (UK)

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

1.1 Product identifier

Product name : Hempel´s Silic One Tiecoat

Product identity : 2745023410

Product type : silicone paint

1.2 Relevant identified uses of the substance or mixture and uses advised against

Field of application : yacht, ships and shipyards.

Identified uses : Consumer applications, Professional applications.

1.3 Details of the supplier of the safety data sheet

Company details :

Hempel UK Ltd
Berwyn House, The Pavilions
Llantarnam Park
Cwmbran
South Wales NP44 3FD
Telephone: 01633 833600
hempel@hempel.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation)

01633 833600 (08.00 - 17.00)
See Section 4 of the safety data sheet (first aid measures).

Date of issue : 2 July 2020

Date of previous issue : No previous validation.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226 FLAMMABLE LIQUIDS

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 - Flammable liquid and vapour.

Precautionary statements :

General : Keep out of reach of children.

Prevention : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response : In case of fire: Use alcohol-resistant foam to extinguish.

Storage : Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Not applicable.

Supplemental label elements : Contains 1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene. May produce an allergic reaction.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

SECTION 2: Hazards identification

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥10 - <20	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime	REACH #: 01-2120006148-66 EC: 700-810-0 CAS: 58190-62-8	≥5 - <10	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
Dodecamethylcyclohexasiloxane	REACH #: 01-2119517435-42 EC: 208-762-8 CAS: 540-97-6	≤1	Not classified.	[3] [4]
1,3-bis(12-hydroxyocta-decanamide-N-mathyle) benzene	REACH #: 01-0000016979-49 EC: 423-300-7	≤0.3	Skin Sens. 1B, H317 Aquatic Chronic 4, H413	[1]
octamethylcyclotetrasiloxane	REACH #: 01-2119529238-36 EC: 209-136-7 CAS: 556-67-2	≤0.3	Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 4, H413	[1] [3] [4]
decamethylcyclopentasiloxane (D5)	REACH #: 01-2119511367-43 EC: 208-764-9 CAS: 541-02-6	≤0.3	Not classified.	[3] [4]
trimethylolpropane	REACH #: 01-2119486799-10 EC: 201-074-9 CAS: 77-99-6	≤0.3	Repr. 2, H361fd See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit, see section 8.
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 112 and give immediate treatment (first aid).

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If unconscious, place in recovery position and seek medical advice.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

SECTION 4: First aid measures

Ingestion :	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact :	No specific data.
Inhalation :	No specific data.
Skin contact :	No specific data.
Ingestion :	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician :	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments :	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media :	Recommended: alcohol resistant foam, CO_2, powders, water spray. Not to be used : waterjet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture :	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous combustion products :	Decomposition products may include the following materials: carbon oxides metal oxide/oxides

5.3 Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used.
Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Product/ingredient name	Exposure limit values
n-butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 8/2018).** STEL: 966 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m³ 8 hours. TWA: 150 ppm 8 hours.
pigment Yellow 42, 77492 (Iron oxide synthetic)	**EH40/2005 WELs (United Kingdom (UK), 8/2018).** STEL: 10 mg/m³, (as Fe) 15 minutes. Form: Fume TWA: 5 mg/m³, (as Fe) 8 hours. Form: Fume

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
n-butyl acetate	DNEL	Long term Inhalation	48 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
Dodecamethylcyclohexasiloxane	DNEL	Long term Inhalation	11 mg/m³	Workers	Systemic
octamethylcyclotetrasiloxane	DNEL	Long term Inhalation	73 mg/m³	Workers	Systemic
decamethylcyclopentasiloxane (D5)	DNEL	Long term Inhalation	97.3 mg/m³	Workers	Systemic

Predicted effect concentrations

Product/ingredient name	Compartment Detail	Value	Method Detail
n-butyl acetate	Fresh water	0.18 mg/l	-
	Marine	0.018 mg/l	-
	Fresh water sediment	0.981 mg/kg	-
	Marine water sediment	0.0981 mg/kg	-
	Soil	0.0903 mg/kg	-
	Sewage Treatment Plant	35.6 mg/l	-
2-Pentanone, O,O',O"-(ethenylsilylidyne) trioxime	Fresh water	0.103 mg/l	-
	Marine water	0.0103 mg/l	-
	Fresh water sediment	0.586 mg/kg	-
	Marine water sediment	0.059 mg/kg	-
	Soil	0.04555 mg/kg	-
	Sewage Treatment Plant	2.22 mg/l	-
Dodecamethylcyclohexasiloxane	Fresh water sediment	2.826 mg/kg	-
	Marine water sediment	0.282 mg/kg	-

SECTION 8: Exposure controls/personal protection

	Soil	3.336 mg/kg	-
	Sewage Treatment Plant	1 mg/l	-
octamethylcyclotetrasiloxane	Fresh water	0.00044 mg/l	-
	Marine water	0.000044 mg/l	-
	Fresh water sediment	0.64 mg/kg	-
	Marine water sediment	0.064 mg/kg	-
	Soil	0.13 mg/kg	-
	Sewage Treatment Plant	>10 mg/l	-
decamethylcyclopentasiloxane (D5)	Fresh water sediment	2.4 mg/kg	-
	Marine water sediment	0.24 mg/kg	-
	Soil	1.1 mg/kg	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water	0.0012 mg/l	-
	Marine water	0.00012 mg/l	-

8.2 Exposure controls

Appropriate engineering controls

Arrange sufficient ventilation by local exhaust ventilation and good general ventilation to keep the airborne concentrations of vapors or dust lowest possible and below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Individual protection measures

General : Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.

Hygiene measures : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Hand protection : Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.

Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:

Recommended: Silver Shield / Barrier / 4H gloves, polyvinyl alcohol (PVA), Viton®
May be used: nitrile rubber, neoprene rubber, butyl rubber
Short term exposure: natural rubber (latex), polyvinyl chloride (PVC)

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. Be sure to use an approved/certified respirator or equivalent.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : Cream

Odour : Solvent-like

pH : Testing not relevant or not possible due to nature of the product.

Melting point/freezing point : Testing not relevant or not possible due to nature of the product.

Boiling point/boiling range : Testing not relevant or not possible due to nature of the product.

Flash point : Closed cup: 31°C (87.8°F)

Evaporation rate : Testing not relevant or not possible due to nature of the product.

SECTION 9: Physical and chemical properties

Flammability :	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and oxidising materials.
Lower and upper explosive (flammable) limits :	1.4 - 7.6 vol %
Vapour pressure :	Testing not relevant or not possible due to nature of the product.
Vapour density :	Testing not relevant or not possible due to nature of the product.
Specific gravity :	1.209 g/cm³
Solubility(ies) :	Very slightly soluble in the following materials: cold water and hot water.
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.
Auto-ignition temperature :	Lowest known value: 415°C (779°F) (n-butyl acetate).
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.
Viscosity :	Testing not relevant or not possible due to nature of the product.
Explosive properties :	Slightly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Oxidising properties :	Testing not relevant or not possible due to nature of the product.

9.2 Other information

Solvent(s) % by weight :	Weighted average: 19 %
Water % by weight :	Weighted average: 0 %
VOC content :	240 g/l
TOC Content :	Weighted average: 143 g/l
Solvent Gas :	Weighted average: 0.048 m³/l

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Highly reactive or incompatible with the following materials: oxidising materials.

10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Exposure to component solvent vapor concentrations may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate	LC50 Inhalation Vapour	Rat	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	>14112 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime	LD50 Oral	Rat	1000 - 2000 mg/kg	-
Dodecamethylcyclohexasiloxane	LD50 Oral	Rat	>50 g/kg	-
1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene	LC50 Inhalation Dusts and mists	Rat	>5 mg/m³	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
octamethylcyclotetrasiloxane	LC50 Inhalation Dusts and mists	Rat	36 mg/l	4 hours
	LD50 Dermal	Rat	>2400 mg/kg	-
	LD50 Oral	Rat	>4800 mg/kg	-
decamethylcyclopentasiloxane (D5)	LC50 Inhalation Dusts and mists	Rat	8.67 mg/l	4 hours
	LD50 Oral	Rat	>24134 mg/kg	-
trimethylolpropane	LD50 Oral	Rat	14100 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral mg/kg	Dermal mg/kg	Inhalation (gases) ppm	Inhalation (vapours) mg/l	Inhalation (dusts and mists) mg/l
Hempel´s Silic One Tiecoat	7982.9				
n-butyl acetate	10768				
2-Pentanone, O,O',O''-(ethenylsilylidyne)trioxime	500				
octamethylcyclotetrasiloxane					36
decamethylcyclopentasiloxane (D5)					8.67
trimethylolpropane	14100				

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
n-butyl acetate	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams
	Eyes - Mild irritant	Rabbit	-	-
	Respiratory - Mild irritant	Rabbit	-	-
octamethylcyclotetrasiloxane	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams
decamethylcyclopentasiloxane (D5)	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams

Mutagenic effects

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

No known significant effects or critical hazards.

Teratogenic effects

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
No known data avaliable in our database.			

Aspiration hazard

Product/ingredient name	Result
No known data avaliable in our database.	

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

SECTION 11: Toxicological information

Potential chronic health effects

Sensitisation : Contains 1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene. May produce an allergic reaction.

Other information : No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses.

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute EC50 648 mg/l	Algae	72 hours
	Acute EC50 44 mg/l	Daphnia	48 hours
1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene	Acute LC50 >100 mg/l	Algae	72 hours
	Acute LC50 >100 mg/l	Fish	96 hours
octamethylcyclotetrasiloxane	Acute EC50 >0.022 mg/l	Algae	96 hours
	Acute EC50 >0.015 mg/l	Daphnia	48 hours
	Acute LC50 >0.022 mg/l	Fish	96 hours
	Chronic NOEC 1.7 - 15 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 4.4 µg/l Fresh water	Fish - Oncorhynchus mykiss - Egg	93 days

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
n-butyl acetate	-	90 % - Readily - 28 days	-	-
	OECD 301D Ready Biodegradability - Closed Bottle Test	80 % - Readily - 5 days	-	-
Dodecamethylcyclohexasiloxane	-	4.5 % - Not readily - 28 days	-	-
1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene	-	5 % - 28 days	-	-
octamethylcyclotetrasiloxane	OECD 310 Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	3.7 % - Not readily - 28 days	-	-
decamethylcyclopentasiloxane (D5)	-	0.14 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
Dodecamethylcyclohexasiloxane	-	-	Not readily
1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene	-	-	Not readily
octamethylcyclotetrasiloxane	-	-	Not readily
decamethylcyclopentasiloxane (D5)	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-butyl acetate	2.3	3.1	low
Dodecamethylcyclohexasiloxane	8.87	1660	high
octamethylcyclotetrasiloxane	6.488	13400	high
decamethylcyclopentasiloxane (D5)	8.023	7060	high
trimethylolpropane	-0.47	<1	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : No known data avaliable in our database.

Mobility : No known data avaliable in our database.

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-butyl acetate	No	N/A	No	No	No	N/A	No
Dodecamethylcyclohexasiloxane	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
1,3-bis(12-hydroxyocta-decanamide-N-mathyle)benzene	No	N/A	N/A	No	N/A	N/A	N/A
octamethylcyclotetrasiloxane	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
decamethylcyclopentasiloxane (D5)	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
trimethylolpropane	No	N/A	No	Yes	No	N/A	No

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The generation of waste should be avoided or minimised wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

European waste catalogue no. (EWC) is given below.

European waste catalogue (EWC) : 08 01 11*

Packaging

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)		14.4 PG*	14.5 Env*	Additional information
ADR/RID Class	UN1263	PAINT	3		III	No.	**Tunnel code** (D/E)
IMDG Class	UN1263	PAINT	3		III	No.	**Emergency schedules** F-E, S-E
IATA Class	UN1263	PAINT	3		III	No.	-

PG* : Packing group
Env.* : Environmental hazards

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorisation - Substances of very high concern

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Dodecamethylcyclohexasiloxane	PBT	Candidate	ED/61/2018	27-Jun-2018
-	vPvB	Candidate	ED/61/2018	27-Jun-2018
octamethylcyclotetrasiloxane	PBT	Candidate	ED/61/2018	27-Jun-2018
-	vPvB	Candidate	ED/61/2018	27-Jun-2018
decamethylcyclopentasiloxane (D5)	PBT	Candidate	ED/61/2018	27-Jun-2018
-	vPvB	Candidate	ED/61/2018	27-Jun-2018

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

Other EU regulations

Seveso category This product is controlled under the Seveso III Directive.

Seveso category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

15.2 Chemical safety assessment

SECTION 16: Other information

Abbreviations and acronyms :

ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
EUH statement = CLP-specific Hazard statement
RRN = REACH Registration Number
DNEL = Derived No Effect Level
PNEC = Predicted No Effect Concentration

Full text of abbreviated H statements :

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS] :

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
FLAMMABLE LIQUIDS	On basis of test data

Notice to reader

Indicates information that has changed from previously issued version.

The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical preformance or suitability for particular applications.
It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.

Safe Use of Mixture Information
Hempel´s Silic One Tiecoat

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

Indoor or outdoor spray painting by professionals or with brush, roller, putty knife, dipping etc. with good general room ventilation.

This safe use information is linked to : Professional spray painting and/or low-energy painting, local effect - Level II
Skin Sens. 1, Eye Irrit. 2 , Asp. Tox. 1 or Solvent.

Sector(s) of use : Industrial uses - Professional uses

Product category(ies) : Coatings and paints, thinners, paint removers

Operational conditions

Place of use : Indoor or outdoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation		Respiratory	Eye	Hands
			Type and air changes per hour				
Preparation of material for application	PROC05	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by brush or roller	PROC10	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings by spraying	PROC11	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	None	None
Cleaning	PROC05	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	More than 4 hours	Good general room ventilation - Outdoors	3 - 5	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.