

Safety Data Sheet

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008



Issuing Date 14-Oct-2024

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Version 5

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

1.1. Product identifier

Product name QSil 550 B

Other means of identification

Pure substance/mixture Mixture

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

Recommended use Industrial silicone elastomer

Application For industrial use only

1.3. Details of the supplier of the safety data sheet

Manufacturer

CHT USA, Inc.
7820 Whitepine Road
Richmond, VA 23237

Supplier

CHT USA, Inc.
805 Wolfe Avenue
Cassopolis, MI 49031

Importer

CHT Germany GmbH
Bismarckstraße 102
72072 Tübingen
Germany

CHT UK
Amber House Showground Road
TA6 6A Bridgwater (Somerset)
England
+44(0) 1278411400

For further information, please contact

E-mail address info.usa@cht.com

1.4. Emergency telephone number

Emergency telephone +1 (703) 527-3887 CHEMTREC

Emergency telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Chronic aquatic toxicity

Category 3 - (H412)

2.2. Label elements

Hazard statements

H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)

P273 - Avoid release to the environment.

P501 - Dispose of contents/ container to an approved waste disposal plant.

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards**Other hazards****PBT & vPvB**

This mixture contains substances considered to be persistent, bio-accumulating and toxic (PBT). This mixture contains substances considered to be very persistent and very bioaccumulating (vPvB).

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Chemical name	Weight-%	CAS No.	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
Dodecamethylcyclotetrasiloxane	0.1-1	540-97-6	208-762-8	No data available	-	-	-	No data available
Decamethylcyclotetrasiloxane	0.1-1	541-02-6	208-764-9	No data available	-	-	-	No data available
Octamethylcyclotetrasiloxane	<0.1	556-67-2	209-136-7 (014-018-00-1)	Repr. 2 (H361f) Aquatic Chronic 1 (H410)	-	-	10	No data available

Full text of H- and EUH-phrases: see section 16**Acute Toxicity Estimate**

No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Dodecamethylcyclotetrasiloxane 540-97-6	50000	2000	No data available	No data available	No data available
Decamethylcyclotetrasiloxane	24134	2000	No data available	No data available	No data available

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
xane 541-02-6					
Octamethylcyclotetrasiloxane 556-67-2	1540	2375	No data available	No data available	No data available

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No.	SVHC candidates
Dodecamethylcyclohexasiloxane	540-97-6	X
Decamethylcyclopentasiloxane	541-02-6	X

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Rinse mouth.

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

Symptoms	No information available.
Effects of Exposure	No information available.

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

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available.
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions

See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections

See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510)

LGK 10.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Biological occupational exposure limits

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Dodecamethylcyclohexasiloxane 540-97-6	-	-	11 mg/m ³ [4] [6] 1.22 mg/m ³ [5] [6] 6.1 mg/m ³ [5] [7]
Decamethylcyclopentasiloxane 541-02-6	-	-	97.3 mg/m ³ [4] [6] 24.2 mg/m ³ [5] [6]
Carbon Black 1333-86-4	-	-	1 mg/m ³ [4] [6] 0.5 mg/m ³ [5] [6]
Octamethylcyclotetrasiloxane 556-67-2	-	-	73 mg/m ³ [4] [6] 73 mg/m ³ [5] [6]

Notes

[4] Systemic health effects.

[5] Local health effects.

[6] Long term.

[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Dodecamethylcyclohexasiloxane 540-97-6	1.7 mg/kg bw/day [4] [6] 1.7 mg/kg bw/day [4] [7]	-	2.7 mg/m ³ [4] [6] 0.3 mg/m ³ [5] [6] 1.5 mg/m ³ [5] [7]
Decamethylcyclopentasiloxane 541-02-6	5 mg/kg bw/day [4] [6]	-	17.3 mg/m ³ [4] [6] 4.3 mg/m ³ [5] [6]
Carbon Black 1333-86-4	-	-	0.06 mg/m ³ [4] [6]
Octamethylcyclotetrasiloxane 556-67-2	3.7 mg/kg bw/day [4] [6]	-	13 mg/m ³ [4] [6] 13 mg/m ³ [5] [6]

Notes

[4] Systemic health effects.

[5] Local health effects.

[6] Long term.

[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Decamethylcyclopentasiloxane 541-02-6	1.2 µg/L	-	0.12 µg/L	-	-
2,4,6,8-tetramethyl-2,4,6,8-tetravinylcyclotetrasiloxane 2554-06-5	0.44 µg/L	-	0.044 µg/L	-	-
Octamethylcyclotetrasiloxane	1.5 µg/L	-	0.15 µg/L	-	-

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
ne 556-67-2					

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Dodecamethylcyclodioxane 540-97-6	13 mg/kg sediment dw	1.3 mg/kg sediment dw	1 mg/L	3.77 mg/kg soil dw	66.7 mg/kg food
Decamethylcyclodioxane 541-02-6	11 mg/kg sediment dw	1.1 mg/kg sediment dw	10 mg/L	2.54 mg/kg soil dw	16 mg/kg food
2,4,6,8-tetramethyl-2,4,6,8- -tetravinylcyclotetrasiloxane 2554-06-5	3 mg/kg sediment dw	0.3 mg/kg sediment dw	100 mg/L	0.164 mg/kg soil dw	-
Aluminum Oxide 1344-28-1	-	-	20 mg/L	-	-
Octamethylcyclotetrasiloxane 556-67-2	3 mg/kg sediment dw	0.3 mg/kg sediment dw	10 mg/L	0.54 mg/kg soil dw	41 mg/kg food

8.2. Exposure controls

Engineering controls No information available.

Personal Protective Equipment

Eye/face protection No special protective equipment required.

Hand protection Appropriate hand protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.

Skin and body protection Appropriate skin and body protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Viscous liquid
Colour Black
Odour Negligible.

Odour threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / Freezing point	No data available	None known
Boiling point / boiling range °C	No data available	None known
Flammability (solid, gas)		None known
Flammability limit in air		None known
Upper flammability limit:	No data available	
Lower flammability limit	No data available	
Flash point	> 140 °C	CC (closed cup)
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity		None known
Dynamic viscosity	4,000 cps	
Water solubility	No data available	None known
solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	1.41	None known
Bulk density	No data available	
Density	No data available	
Vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

hazardous polymerisation No information available.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

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

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 33,995.40 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dodecamethylcyclohexasiloxane	> 50 g/kg (Rat)	> 2000 mg/kg (Rat)	-
Decamethylcyclopentasiloxane	> 24134 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 8.67 mg/L (Rat) 4 h
Octamethylcyclotetrasiloxane	= 1540 mg/kg (Rat)	> 2375 mg/kg (Rat)	= 36 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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

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

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Octamethylcyclotetrasiloxane	Repr. 2

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

Other Adverse Effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Octamethylcyclotetrasiloxane	-	LC50: >500mg/L (96h, Brachydanio rerio) LC50: >1000mg/L (96h, Lepomis macrochirus)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
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Dodecamethylcyclohexasiloxane	8.87
Decamethylcyclopentasiloxane	8.023
Octamethylcyclotetrasiloxane	6.488

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product contains substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Dodecamethylcyclohexasiloxane	vPvB substance
Decamethylcyclopentasiloxane	vPvB substance
Octamethylcyclotetrasiloxane	PBT & vPvB

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

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

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number Not regulated
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
Note: Formation of hydrogen gas during storage may be observed. Air transport is forbidden if shipped in vented containers.

IMDG

14.1 UN number or ID number Not applicable
14.2 UN proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated

14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1	
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADN

14.1	
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4	
14.5	
14.6 Special precautions for user	

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France**

Occupational Illnesses (R-463-3, France)

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)
 TA Luft (German Air Pollution Control Regulation)

Chemical name	Number	Class
Octamethylcyclotetrasiloxane	5.2.5	Class I

Netherlands**Carcinogenic, mutagenic and reproductive toxic effects**

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Octamethylcyclotetrasiloxane	-	-	Fertility Category 2

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Decamethylcyclopentasiloxane - 541-02-6	70	-
Carbon Black - 1333-86-4	75	-
Octamethylcyclotetrasiloxane - 556-67-2	70	-
Titanium Dioxide - 13463-67-7	75	-
Iron Oxide - 1309-37-1	75	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	Not Determined
TCSI	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
 STOT: Specific Target Organ Toxicity
 ATE: Acute Toxicity Estimate
 LC50: 50% Lethal Concentration
 LD50: 50% Lethal Dose

Legend SECTION 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
+	Sensitisers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet