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 **Revision date** 14-Oct-2024 **Version** 9

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

1.1. Product identifier

Product name QSil 216 A

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

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

Importer
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
Dodecamethylcyclohexasiloxane	0.1-1	540-97-6	208-762-8	No data available	-	-	-	No data available
Decamethylcyclopentasiloxane	0.1-1	541-02-6	208-764-9	No data available	-	-	-	No data available
Octamethylcyclotetrasiloxane	0.1-1	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
Dodecamethylcyclohexasiloxane 540-97-6	50000	2000	No data available	No data available	No data available
Decamethylcyclopentasilo	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
Octamethylcyclotetrasiloxane	556-67-2	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.

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 No information available.

chemical

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	This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Dodecamethylcyclohexasiloxane 540-97-6	-	-	11 mg/m³ [4] [6] 1.22 mg/m³ [5] [6] 6.1 mg/m³ [5] [7]
Decamethylcyclopentasiloxane 541-02-6	-	-	97.3 mg/m³ [4] [6] 24.2 mg/m³ [5] [6]
Octamethylcyclotetrasiloxane 556-67-2	-	-	73 mg/m³ [4] [6] 73 mg/m³ [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/m³ [4] [6] 0.3 mg/m³ [5] [6] 1.5 mg/m³ [5] [7]
Decamethylcyclopentasiloxane 541-02-6	5 mg/kg bw/day [4] [6]	-	17.3 mg/m³ [4] [6] 4.3 mg/m³ [5] [6]
Octamethylcyclotetrasiloxane 556-67-2	3.7 mg/kg bw/day [4] [6]	-	13 mg/m³ [4] [6] 13 mg/m³ [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	-	-
Octamethylcyclotetrasiloxane 556-67-2	1.5 µg/L	-	0.15 µg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Dodecamethylcyclohexasiloxane 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
Decamethylcyclopentasiloxane 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
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 Clear
Odour Negligible.
Odour threshold No information available

Property	Values	Remarks • Method
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	1.02	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) 20,121.60 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
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

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

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)
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)

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

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
AIIC - 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

Full text of H-Statements referred to under section 3
H361f - Suspected of damaging fertility
H410 - Very toxic to aquatic life with long lasting effects

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
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End of Safety Data Sheet