



Safety Data Sheet

Issue date 05-Apr-2016

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Version 2

1. Identification

Product Identifier

Product name QM Cat 100

Other means of identification

UN/ID no UN1993

Recommended use of the chemical and restrictions on use

Recommended use Industrial silicone elastomer.
Application FOR INDUSTRIAL USE ONLY

Details of the Supplier of the Safety Data Sheet

Supplier	Manufacturer Address
Quantum Silicones 7820 Whitepine Rd Richmond, VA 23237	Quantum Silicones 8021 Reycan Rd Richmond, VA 23237

Emergency Telephone Number

Company Phone Number 800-852-3147 (8AM - 5PM EST)
Emergency telephone Chemtrec 1-800-424-9300

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2
Reproductive Toxicity	Category 2
FLAMMABLE LIQUIDS	Category 3

Label Elements

EMERGENCY OVERVIEW

WARNING

hazard statements

Causes serious eye irritation
Suspected of damaging fertility or the unborn child
FLAMMABLE LIQUID AND VAPOR



The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Viscous liquid**Physical State** Liquid**Odor** Negligible**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ ventilating / lighting/ .? / equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF IN 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
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

Not Applicable

OTHER INFORMATION

May be harmful in contact with skin. Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

3. Composition/information on Ingredients

Substance

Not Applicable

Mixture

Chemical name	CAS No	weight-%	Trade secret
Tetramethyl orthosilicate	681-84-5	10 - 30	*
5,5-Dlbutyl-3,3,7,7-tetramethoxy-2,4,6,8-tetraoxa-3,7-disila-5-stannanonane	94134-56-2	7 - 13	*
Tetratethyl Silicate	78-10-4	3 - 7	*
Tetraethylsilicate	78-10-4	3 - 7	*
2-ethylhexanoic acid	149-57-5	1 - 5	*

4. First aid measures

Description of first aid measures**General Advice**

Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact	Wash off immediately with plenty of water.
INHALATION	Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
INGESTION	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.
Self-Protection of the First Aider	Remove all sources of ignition.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media

Use. Dry chemical. Carbon dioxide (CO₂). Water spray (fog). Alcohol resistant foam.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition. FLAMMABLE.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required.

Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

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 Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

7. Handling and Storage

Precautions for Safe Handling

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials None known based on information supplied.

8. Exposure Controls/Personal Protection

Control Parameters

Ingredients with workplace exposure parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Tetramethyl orthosilicate 681-84-5	TWA: 1 ppm	(vacated) TWA: 1 ppm (vacated) TWA: 6 mg/m ³	TWA: 1 ppm TWA: 6 mg/m ³
5,5-Dibutyl-3,3,7,7-tetramethoxy-2,4,6,8-tetraoxa-3,7-disila-5-stannanonane 94134-56-2	STEL: 0.2 mg/m ³ Sn TWA: 0.1 mg/m ³ Sn S*	TWA: 0.1 mg/m ³ Sn (vacated) TWA: 0.1 mg/m ³ Sn (vacated) S*	IDLH: 25 mg/m ³ Sn TWA: 0.1 mg/m ³ except Cyhexatin Sn
Tetratethyl Silicate 78-10-4	TWA: 10 ppm	TWA: 100 ppm TWA: 850 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 85 mg/m ³	IDLH: 700 ppm TWA: 10 ppm TWA: 85 mg/m ³
Tetraethylsilicate 78-10-4	TWA: 10 ppm	TWA: 100 ppm TWA: 850 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 85 mg/m ³	IDLH: 700 ppm TWA: 10 ppm TWA: 85 mg/m ³
2-ethylhexanoic acid 149-57-5	TWA: 5 mg/m ³ inhalable fraction and vapor	-	-

NIOSH IDLH *Immediately Dangerous to Life or Health*

OTHER INFORMATION Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate Engineering Controls

Engineering controls Showers
Eyewash stations

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing.

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 When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State Liquid

Appearance	Viscous liquid	Odor	Negligible
Color	Clear	Odor threshold	No information available
Property	VALUES	Remarks • Method	
pH	No information available		
Melting point / Freezing point	No information available		
Boiling point / Boiling range	> 122 °C / 252 °F		
Flash point	> 54 °C / > 129 °F	CC (closed cup)	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability limit in air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Relative density	No information available		
Water solubility	No information available		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	20 cps		
Explosive properties	Not an explosive		
Oxidizing properties	This product is not an oxidizing agent		

OTHER INFORMATION

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	0.97
Bulk density	No information available

10. Stability and Reactivity**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

hazardous polymerization	No information available.
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Conditions to avoid

Heat, flames and sparks.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

None known based on information supplied.

11. Toxicological Information**Information on Likely Routes of Exposure**

Product information	No data available.
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INHALATION	No data available.
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Eye Contact No data available.

Skin Contact No data available.

INGESTION No data available.

Chemical name	Oral LD50	dermal LD50	Inhalation LC50
Tetramethyl orthosilicate 681-84-5	-	= 17 mL/kg (Rabbit)	-
Tetratethyl Silicate 78-10-4	= 6270 mg/kg (Rat)	= 6300 µL/kg (Rabbit)	-
Tetraethylsilicate 78-10-4	= 6270 mg/kg (Rat)	= 6300 µL/kg (Rabbit)	-
2-ethylhexanoic acid 149-57-5	= 1600 mg/kg (Rat)	= 1140 mg/kg (Rabbit)	-

Information on Toxicological Effects

Symptoms No information available.

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

sensitization No information available.

Germ Cell Mutagenicity No information available.

carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Reproductive Toxicity No information available.

STOT - Single Exposure No information available.

STOT - Repeated Exposure No information available.

Chronic Toxicity May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Target organ effects Blood, Central Nervous System, EYES, Kidney, Liver, Respiratory System, skin, Urinary tract.

Aspiration Hazard No information available.

Numerical Measures of Toxicity - Product information

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

ATEmix (oral) 16,180.00 mg/kg

ATEmix (dermal) 2,693.00 mg/kg

ATEmix (inhalation-dust/mist) 15.00 mg/l

12. Ecological Information

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

Ecotoxicity

Harmful to aquatic life with long lasting effects

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
2-ethylhexanoic acid 149-57-5	2.7

Other Adverse Effects No information available

13. Disposal Considerations

Waste Treatment Methods

Disposal of wastes This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Do not reuse container.

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport Information

DOT

UN/ID no UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard class 3
Packing group III
Special Provisions B1, B52, IB3, T4, TP1, TP29
Marine Pollutant This product contains a chemical which is listed as a severe marine pollutant according to DOT.
Description UN1993, Flammable liquid, n.o.s. (Tetraethylsilicate, Methanol), , 3, III
Emergency Response Guide Number 128

IATA

UN/ID no UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard class 3
Packing group III
ERG Code 3L
Special Provisions A3
Description UN1993, Flammable liquid, n.o.s. (Tetraethylsilicate, Methanol), 3, III

IMDG

UN/ID no UN1993
Proper Shipping Name Flammable liquid, n.o.s.*
Hazard class 3
Packing group III
EmS-No F-E, S-E
Special Provisions 223, 274, 955
Description UN1993, Flammable liquid, n.o.s.*, Marine Pollutant, III, (54°C c.c.)

TDG

UN/ID no UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard class 3
Packing group III
Description UN1993, Flammable liquid, n.o.s., , III

MEX

UN/ID no UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard class 3
Packing group III

Description UN1993, Flammable liquid, n.o.s. (Tetraethylsilicate, Methanol), III

ICAO (air)

UN/ID no UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard class 3
Packing group III
Special Provisions A3
Description UN1993, Flammable liquid, n.o.s., III

RID

UN/ID no UN1993
Proper Shipping Name Combustible liquid, n.o.s.
Hazard class 3
Packing group III
Classification Code F1
Description UN1993, Combustible liquid, n.o.s. (Tetraethylsilicate, Methanol), , III

15. Regulatory Information

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	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 Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	YES
Chronic health hazard	NO
Fire Hazard	YES
Sudden Release of Pressure Hazard	NO
Reactive Hazard	NO

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product contains Proposition 65 chemicals

Chemical name	California Proposition 65
Ethanol - 64-17-5	Carcinogen Developmental
Methanol - 67-56-1	Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Polydimethylsiloxane 63148-62-9	X	X	X
Tetraethylsilicate 78-10-4	X	X	X
Ethanol 64-17-5	X	X	X
Methanol 67-56-1	X	X	X

U.S. EPA Label information

EPA Pesticide registration number Not Applicable

16. Other information, including date of preparation of the last revision

NFPA	Health Hazards 2	Flammability 2	Instability 0	-
HMIS	Health Hazards 2	Flammability 2	Physical Hazards 0	-

Issue date 05-Apr-2016
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Revision note
 No information available

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