

SECTION 1: Identification

1.1. Product identifier

Product form : Substance
Substance name : XL-110
Synonyms : Silicone Crosslinker

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

Use of the substance/mixture : For professional use only.

1.3. Details of the supplier of the safety data sheet

NuSil Technology LLC
1050 Cindy Lane
Carpinteria, California 93013
USA
(805) 684-8780
ehs@nusil.com
www.nusil.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (International and Maritime)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 4 H227
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Repr. 2 H361
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H227 - Combustible liquid
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H361 - Suspected of damaging fertility or the unborn child
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P261 - Avoid breathing vapors, mist, or spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, protective gloves.

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P302+P352 - If on skin: Wash with plenty of water.
P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Name	Product identifier	%	GHS-US classification
Siloxanes and Silicones, dimethyl, methyl hydrogen	(CAS No) 68037-59-2	>90	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 3	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 4, H413

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Remove contaminated clothing. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period (at least 15 minutes) while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-aid measures after ingestion : Do not induce vomiting. Seek medical attention.

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

- Symptoms/injuries : Causes eye irritation. Causes skin irritation. Irritation of respiratory tract.
- Symptoms/injuries after inhalation : Inhalation of fumes or vapours may cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes eye irritation.
- Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects.

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

If medical advice is needed, have product container or label at hand.

SECTION 5: Fire-Fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : For large fire : Alcohol-resistant foam. Universal-type foam. For small fire : Water spray. Carbon dioxide. Dry chemical.
- Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire. Water or foam may cause frothing.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not considered flammable but will burn at high temperatures. . Under conditions of fire this material may produce: Carbon oxides (CO, CO₂). Silicon oxides. Low molecular weight hydrocarbon fragments.
- Explosion hazard : Product is not explosive.
- Reactivity : Stable at ambient temperature and under normal conditions of use.

5.3. Advice for firefighters

- Precautionary measures fire : Under fire conditions, hazardous fumes will be present.
- Firefighting instructions : Do not breathe fumes from fires or vapours from decomposition. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Use normal individual fire protective equipment. Use self-contained breathing apparatus when fighting fire in an enclosed area.
- Other information : Do not use a solid water stream as it may scatter and spread fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.
- Emergency procedures : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing, gloves and eye/face protection.
- Emergency procedures : If possible, stop flow of product. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.2. Environmental precautions

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.3. Methods and material for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material, then place in suitable container.
- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Collect absorbed material and place into a sealed, labelled container for proper disposal.

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6.4. Reference to other sections

See heading 8, Exposure Controls and Personal Protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.
- Precautions for safe handling : Use appropriate personal protective equipment when handling and observe good personal hygiene measures after handling. Avoid contact with skin and eyes. Do not breathe vapours.
- Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a dry, cool place. Keep container tightly closed. Store in original container.
- Incompatible materials : Reacts with (strong) oxidizers.
- Storage area : Store away from heat.
- Special rules on packaging : Keep container closed when not in use.

7.3. Specific end use(s)

For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

8.2. Exposure controls

- Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Gloves. Safety glasses. Protective clothing. Insufficient ventilation: wear respiratory protection.



- Materials for protective clothing : Chemically resistant materials and fabrics.
- Hand protection : Nitrile rubber (NBR) /. Vinyl gloves.
- Eye protection : Safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Colorless
- Odor : Odorless
- Odor threshold : No data available

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pH	: No data available
Evaporation Rate	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 81 °C (177 °F)
Auto-ignition Temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity	: < 1 (Water=1)
Solubility	: Water: Insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability

Stable at standard temperature and pressure.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapors.

10.5. Incompatible materials

Avoid strong oxidizers.

10.6. Hazardous decomposition products

Under conditions of fire this material may produce: Carbon oxides (CO, CO₂). Silicon oxides. Low molecular weight hydrocarbon fragments. May produce explosive hydrogen gas on contact with incompatibilities or upon thermal decomposition.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	1540 mg/kg
LD50 Dermal Rabbit	794 µl/kg
LC50 Inhalation Rat	36 g/m ³ (Exposure time: 4 h)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Suspected of damaging fertility or the unborn child.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified

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Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Inhalation of fumes or vapours may cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: Ingestion is likely to be harmful or have adverse effects.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - General : Not classified

Octamethylcyclotetrasiloxane (556-67-2)	
LC50 Fish 1	> 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)
LC50 Fish 2	> 1000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish 1	12400
Log Pow	5.1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	: Do not empty into drains; dispose of this material and its container in a safe way.
Waste disposal recommendations	: Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: Transport information

Note: Depending on the manner in which this product is packaged, it may meet a Limited Quantity exemption. The following applies only if it does not meet that exemption.
In accordance with DOT / IMDG / IATA

14.1. UN number

DOT NA no. NA1993

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Combustible liquid, n.o.s. (Contains silicones, siloxanes)
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

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DOT Symbols	: D - Proper shipping name for domestic use only, G - Identifies PSN requiring a technical name
Packing group (DOT)	: III - Minor Danger
DOT Special Provisions (49 CFR 172.102)	: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672) T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
14.3. Additional information	
Emergency Response Guide (ERG) Number	: 128
Other information	: No supplementary information available.
Transport by sea	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel
Air transport	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L

SECTION 15: Regulatory information

15.1. US Federal regulations

All components in this mixture are listed on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, have been exempted, are not listed, not disclosed due to CBI requirements or disclosure rules according to the relevant regulation.

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SARA Section 311/312 Hazard Classes	Health hazard - Reproductive toxicity

15.2. US State regulations

Octamethylcyclotetrasiloxane (556-67-2)
U.S. - Maine - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern
U.S. - Minnesota - Chemicals of High Concern - Persistent Bioaccumulative Toxins
U.S. - Oregon - Priority Persistent Pollutant - Tier I - Persistent Pollutants
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

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SECTION 16: Other information, including date of preparation or last revision

Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Revision Date: 10/30/2018

Full text of H-phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H226	Flammable liquid and vapor
H361	Suspected of damaging fertility or the unborn child
H413	May cause long lasting harmful effects to aquatic life

NFPA health hazard

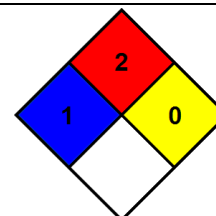
1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

NFPA reactivity

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



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