

# R-2100-2 Part A

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Revision Date: 07/12/2021 Date of Issue: 04/02/2014



Version: 4.0

### SECTION 1: Identification

#### 1.1. Product Identifier

Product Form Mixture  
Product Name R-2100-2 Part A  
Synonyms Silicone Ink

#### 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](mailto:ehs@nusil.com)  
[www.nusil.com](http://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. 3	H226
Acute Tox. 4 (Dermal)	H312
Acute Tox. 4 (Inhalation:vapor)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Repr. 2	H361
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Acute 2	H401

Full text of hazard classes and H-statements: see section 16

#### 2.2. Label Elements

##### GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS02



GHS07



GHS08

Signal Word (GHS-US)

Danger

Hazard Statements (GHS-US)

H226 - Flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H312+H332 - Harmful in contact with skin or if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

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### Precautionary Statements (GHS-US)

H336 - May cause drowsiness or dizziness  
H361 - Suspected of damaging fertility or the unborn child  
H401 - Toxic to aquatic life  
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, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment.  
P241 - Use explosion-proof electrical, lighting, ventilating equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing vapors, mist, or spray.  
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, protective clothing, protective gloves, face protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P312 - Call a poison center or doctor if you feel unwell.  
P321 - Specific treatment (see Section 4 on this SDS).  
P322 - Specific treatment (see supplemental first aid instruction on this label).  
P331 - Do NOT induce vomiting.  
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 water spray, fog, carbon dioxide, alcohol-resistant foam, or dry chemical to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

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### 2.3. Other Hazards

Other Hazards Not Contributing to the Classification Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: Composition/Information On Ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%	GHS-US Classification
Xylenes (o-, m-, p- isomers)	(CAS-No.) 1330-20-7	20 - 40	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:vapor), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	(CAS No) 68909-20-6	< 10	Not classified
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 1	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 4, H413

Full text of H-phrases: see section 16

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

## SECTION 4: First Aid Measures

### 4.1. Description of First-aid Measures

First-aid Measures General	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation	When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
First-aid Measures After Skin Contact	Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Immediately call a poison center or doctor/physician.
First-aid Measures After Eye Contact	Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

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First-aid Measures After Ingestion

Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries

Harmful in contact with skin or if inhaled. Causes serious eye irritation. Causes skin irritation. May cause drowsiness and dizziness. May be fatal if swallowed and enters airways. Suspected of damaging fertility or the unborn child.

Symptoms/Injuries After Inhalation

Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Injuries After Skin Contact

Redness, pain, swelling, itching, burning, dryness, and dermatitis. This material is harmful through skin contact, and can cause adverse health effects or death in significant amounts. This material may be absorbed through the skin and eyes.

Symptoms/Injuries After Eye Contact

Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion

Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms

Suspected of damaging fertility or the unborn child.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

Suitable Extinguishing Media

: Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media

: Do not use a heavy water stream. A heavy water stream may spread burning liquid. Application of water stream to hot product may cause frothing and increase fire intensity.

### 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard

Highly flammable liquid and vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.

Explosion Hazard

May form flammable or explosive vapor-air mixture.

Reactivity

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

### 5.3. Advice for Firefighters

Precautionary Measures Fire

Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

Firefighting Instructions

Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting

Do not enter fire area without proper protective equipment, including respiratory protection.

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Hazardous Combustion  
Products  
Other Information

Carbon oxides (CO, CO<sub>2</sub>). Silicon oxides. Formaldehyde.

Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment And Emergency Procedures

General Measures

Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.

#### 6.1.1. For Non-Emergency Personnel

Protective Equipment  
Emergency Procedures

Use appropriate personal protective equipment (PPE).  
Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.1.2. For emergency responders

Protective Equipment  
Emergency Procedures

Equip cleanup crew with proper protection.  
Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area. Eliminate ignition sources.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and Materials for Containment and Cleaning Up

For Containment

As an immediate precautionary measure, isolate spill or leak area in all directions. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Ventilate area.

Methods for Cleaning Up

Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Use only non-sparking tools. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: Handling And Storage

### 7.1. Precautions for Safe Handling

Additional Hazards When  
Processed

Flammable vapors may accumulate in the head space of closed systems. Container may remain hazardous when empty. Handle empty containers with care because residual vapors are flammable.

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### Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Handle empty containers with care because they may still present a hazard. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety procedures.

## 7.2. Conditions for Safe Storage, Including Any Incompatibilities

### Technical Measures

Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

### Storage Conditions

Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place. Store locked up/in a secure area.

### Incompatible Materials

Strong acids, strong bases, strong oxidizers.

## 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), or OSHA (PEL).

Xylenes (o-, m-, p- isomers) (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	Biological Exposure Indices (BEI)	1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80 mg/m <sup>3</sup> /%SiO <sub>2</sub> )

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### 8.2. Exposure Controls

Appropriate Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released.

Personal Protective Equipment

Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials For Protective Clothing  
Hand Protection

Chemically resistant materials and fabrics. Wear fire/flamm resistant/retardant clothing. Wear chemically resistant protective gloves. Wear protective gloves.

Eye And Face Protection  
Skin And Body Protection  
Respiratory Protection

Chemical safety goggles. Wear suitable protective clothing. If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information

When using, do not eat, drink or smoke.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	Liquid
Appearance	Black
Odor	Solvent
Odor Threshold	No data available
pH	No data available
Evaporation Rate	No data available
Melting Point	No data available
Freezing Point	No data available
Boiling Point	138 °C (280 °F)
Flash Point	27 °C (80 °F)
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	Not applicable
Vapor Pressure	No data available
Relative Vapor Density at 20°C	No data available
Specific Gravity	< 1
Solubility	No data available
Partition Coefficient n-Octanol/Water	No data available
Viscosity	No data available

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### 9.2. Other Information

VOC Content 20 - 40%

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

### 10.2. Chemical Stability

Extremely flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Explosive hydrogen gas. Silicon oxides. Carbon oxides (CO, CO<sub>2</sub>). Will decompose above 150 °C (>300° F) releasing formaldehyde vapors. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

Acute Toxicity (Oral) : Not classified  
Acute Toxicity (Dermal) : Harmful in contact with skin.  
Acute Toxicity (Inhalation) : Harmful if inhaled.

R-2100-2 Part A	
ATE (Dermal)	1,617.65 mg/kg body weight
ATE (Vapors)	16.18 mg/l/4h
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 Oral Rat	> 5000 mg/kg
LC50 Inhalation Rat	6247 ppm/4h (species: Sprague-Dawley)
ATE (Dermal)	1,100.00 mg/kg body weight
ATE (Vapors)	11.00 mg/l/4h
Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	> 4800 mg/kg
LD50 Dermal Rabbit	> 2.5 ml/kg
LC50 Inhalation Rat	36 g/m <sup>3</sup> (Exposure time: 4 h)
ATE (Vapors)	36.00 mg/l/4h
ATE (Dust/Mist)	36.00 mg/l/4h
Skin Corrosion/Irritation	Causes skin irritation.
Serious Eye Damage/Irritation	Causes serious eye irritation.
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified

Xylenes (o-, m-, p- isomers) (1330-20-7)	
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IARC Group	3
Reproductive Toxicity	: Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity (Single Exposure)	: May cause drowsiness or dizziness.
Specific Target Organ Toxicity (Repeated Exposure)	: Not classified
Aspiration Hazard	May be fatal if swallowed and enters airways.
Symptoms/Injuries After Inhalation	Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.
Symptoms/Injuries After Skin Contact	Redness, pain, swelling, itching, burning, dryness, and dermatitis. This material is harmful through skin contact, and can cause adverse health effects or death in significant amounts. This material may be absorbed through the skin and eyes.
Symptoms/Injuries After Eye Contact	Contact causes severe irritation with redness and swelling of the conjunctiva.
Symptoms/Injuries After Ingestion	Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.
Chronic Symptoms	Suspected of damaging fertility or the unborn child.

## SECTION 12: Ecological Information

### 12.1. Toxicity

Ecology - General Toxic to aquatic life.

Xylenes (o-, m-, p- isomers) (1330-20-7)	
LC50 Fish 1	3.3 mg/l
EC50 Daphnia 1	3.82 mg/l (Exposure time: 48 h - Species: water flea)
LC50 Fish 2	2.661 (2.661 - 4.093) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
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

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Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.
Xylenes (o-, m-, p- isomers) (1330-20-7)	
BCF Fish 1	0.6 (0.6 - 15)
Log Pow	2.77 - 3.15
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish 1	12400
Log Pow	5.1

### 12.4. Mobility In Soil

No additional information available

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### 12.5. Other Adverse Effects

Other Information Avoid release to the environment.

## SECTION 13: Disposal Considerations

### 13.1. Waste Treatment Methods

Waste Disposal Dispose of contents/container in accordance with local, regional, national, and international regulations.  
Recommendations  
Additional Information Handle empty containers with care because residual vapors are flammable.  
Ecology - Waste Materials Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

Proper Shipping Name XYLENES SOLUTION  
Hazard Class 3  
Identification Number UN1307  
Label Codes 3  
Packing Group III  
ERG Number 130



### 14.2. In Accordance with IMDG

Proper Shipping Name XYLENES SOLUTION  
Hazard Class 3  
Identification Number UN1307  
Packing Group III  
Label Codes 3  
EmS-No. (Fire) F-E  
EmS-No. (Spillage) S-D



### 14.3. In Accordance with IATA

Proper Shipping Name XYLENES SOLUTION  
Packing Group III  
Identification Number UN1307  
Hazard Class 3  
Label Codes 3  
ERG Code (IATA) 3L



## 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 - Specific target organ toxicity (single or repeated exposure) Health hazard - Reproductive toxicity Health hazard - Skin corrosion or Irritation Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Serious eye damage or eye irritation Health hazard - Acute toxicity (any route of exposure) Health hazard - Aspiration hazard
Xylenes (o-, m-, p- isomers) (1330-20-7)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

#### 15.2. US State Regulations

Xylenes (o-, m-, p- isomers) (1330-20-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Xylenes (o-, m-, p- isomers) (1330-20-7)	

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U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute  
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic  
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)  
U.S. - Colorado - Groundwater Quality Standards  
U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues  
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Level Goals (MCLGs)  
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Levels (MCLs)  
U.S. - Connecticut - Drinking Water Quality Standards - Maximum Contaminant Levels  
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities  
U.S. - Florida - Drinking Water Standards - Volatile Organic Contaminants - Maximum Contaminant Levels (MCLs)  
U.S. - Georgia - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)  
U.S. - Idaho - Occupational Exposure Limits - TWAs  
U.S. - Illinois - Toxic Air Contaminants  
U.S. - Louisiana - Reportable Quantity List for Pollutants  
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants  
U.S. - Massachusetts - Allowable Ambient Limits (AALs)  
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)  
U.S. - Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2  
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2  
RTK - U.S. - Massachusetts - Right To Know List  
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)  
U.S. - Massachusetts - Toxics Use Reduction Act  
U.S. - Michigan - Occupational Exposure Limits - STELs  
U.S. - Michigan - Occupational Exposure Limits - TWAs  
U.S. - Michigan - Polluting Materials List  
U.S. - Minnesota - Chemicals of High Concern  
U.S. - Minnesota - Groundwater Health Risk Limits  
U.S. - Minnesota - Hazardous Substance List  
U.S. - Minnesota - Permissible Exposure Limits - STELs  
U.S. - Minnesota - Permissible Exposure Limits - TWAs  
U.S. - Missouri - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Nebraska - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - New Hampshire - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual  
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances  
U.S. - New Jersey - Environmental Hazardous Substances List  
U.S. - New Jersey - Primary Drinking Water Standards - Maximum Contaminant Levels - MCLs

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RTK - U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New Jersey - Special Health Hazards Substances List  
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria  
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)  
U.S. - New Mexico - Water Quality - Standards for Ground Water of 10,000 mg/L TDS Concentration or Less  
U.S. - New York - Occupational Exposure Limits - TWAs  
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances  
U.S. - North Carolina - Control of Toxic Air Pollutants  
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour  
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour  
U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues  
U.S. - North Dakota - Water Quality Standards - Human Health Value for Classes I, IA, II  
U.S. - Oregon - Permissible Exposure Limits - TWAs  
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups  
U.S. - Pennsylvania - Drinking Water - Maximum Contaminant Levels (MCLs)  
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
RTK - U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 24-Hour  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual  
U.S. - Rhode Island - Water Quality Standards - Acute Freshwater Aquatic Life Criteria  
All concentrations are expressed as percentages by weight unless the ingredient is a gas.  
U.S. - South Carolina - Maximum Contaminant Levels (MCLs)  
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations  
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories  
U.S. - Tennessee - Occupational Exposure Limits - STELs  
U.S. - Tennessee - Occupational Exposure Limits - TWAs  
U.S. - Texas - City of Austin - Aerosol Paint and Glue Restrictions  
U.S. - Texas - Drinking Water Standards - Maximum Contaminant Levels (MCLs)  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term  
U.S. - Utah - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Washington - Dangerous Waste - Discarded Chemical Products List  
U.S. - Washington - Permissible Exposure Limits - STELs  
U.S. - Washington - Permissible Exposure Limits - TWAs  
U.S. - West Virginia - Water Quality - Groundwater Standards - Ceiling Concentrations  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

# R-2100-2 Part A

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### Octamethylcyclotetrasiloxane (556-67-2)

U.S. - Maine - Chemicals of 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

## SECTION 16: Other Information, Including Date of Preparation or Last Revision

Date of Preparation or Latest Revision 07/12/2021

Other Information

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

GHS Full Text Phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H401	Toxic to aquatic life
H413	May cause long lasting harmful effects to aquatic life

NFPA Health Hazard

2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

# R-2100-2 Part A

## Safety Data Sheet

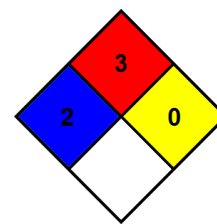
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA Fire Hazard

3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA Reactivity Hazard

0 - Material that in themselves are normally stable, even under fire conditions.



HMIS III Rating  
Health

3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given  
\* Chronic - Chronic (long-term) health effects may result from repeated overexposure

Flammability  
Physical

3 Serious Hazard  
0 Minimal Hazard

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NuSil US GHS SDS

# R-2100-2 Part B

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Revision Date: 07/12/2021 Date of Issue: 04/04/2014



Version: 4.0

### SECTION 1: Identification

#### 1.1. Product Identifier

Product Form Mixture  
Product Name R-2100-2 Part B  
Synonyms Silicone Ink

#### 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](mailto:ehs@nusil.com)  
[www.nusil.com](http://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. 3	H226
Acute Tox. 4 (Dermal)	H312
Acute Tox. 4 (Inhalation:vapor)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Repr. 2	H361
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Acute 2	H401

Full text of hazard classes and H-statements: see section 16

#### 2.2. Label Elements

##### GHS-US Labeling

Hazard Pictograms (GHS-US)



GHS02 GHS07 GHS08

Signal Word (GHS-US)

Danger

Hazard Statements (GHS-US)

H226 - Flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H312+H332 - Harmful in contact with skin or if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation



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#### Precautionary Statements (GHS-US)

H336 - May cause drowsiness or dizziness  
H361 - Suspected of damaging fertility or the unborn child  
H401 - Toxic to aquatic life  
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, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment.  
P241 - Use explosion-proof electrical, lighting, ventilating equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing vapors, mist, or spray.  
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, protective clothing, protective gloves, face protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P312 - Call a poison center or doctor if you feel unwell.  
P321 - Specific treatment (see Section 4 on this SDS).  
P322 - Specific treatment (see supplemental first aid instruction on this label).  
P331 - Do NOT induce vomiting.  
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 water spray, fog, carbon dioxide, alcohol-resistant foam, or dry chemical to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

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#### 2.3. Other Hazards

Other Hazards Not Contributing to the Classification Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

#### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

### SECTION 3: Composition/Information On Ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product Identifier	%	GHS-US Classification
Xylenes (o-, m-, p- isomers)	(CAS-No.) 1330-20-7	20 - 40	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:vapor), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica	(CAS No) 68909-20-6	< 10	Not classified
Siloxanes and Silicones, dimethyl, methyl hydrogen	(CAS No) 68037-59-2	< 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Octamethylcyclotetrasiloxane	(CAS-No.) 556-67-2	< 1	Flam. Liq. 3, H226 Repr. 2, H361 Aquatic Chronic 4, H413

Full text of H-phrases: see section 16

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

### SECTION 4: First Aid Measures

#### 4.1. Description of First-aid Measures

First-aid Measures General	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation	When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
First-aid Measures After Skin Contact	Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Immediately call a poison center or doctor/physician.

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First-aid Measures After Eye Contact

Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid Measures After Ingestion

Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

#### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries

Harmful in contact with skin or if inhaled. Causes serious eye irritation. Causes skin irritation. May cause drowsiness and dizziness. May be fatal if swallowed and enters airways. Suspected of damaging fertility or the unborn child.

Symptoms/Injuries After Inhalation

Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.

Symptoms/Injuries After Skin Contact

Redness, pain, swelling, itching, burning, dryness, and dermatitis. This material is harmful through skin contact, and can cause adverse health effects or death in significant amounts. This material may be absorbed through the skin and eyes.

Symptoms/Injuries After Eye Contact

Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion

Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms

Suspected of damaging fertility or the unborn child.

#### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Suitable Extinguishing Media : Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media : Do not use a heavy water stream. A heavy water stream may spread burning liquid. Application of water stream to hot product may cause frothing and increase fire intensity.

#### 5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard

Highly flammable liquid and vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.

Explosion Hazard  
Reactivity

May form flammable or explosive vapor-air mixture. Reacts violently with strong oxidizers. Increased risk of fire or explosion.

#### 5.3. Advice for Firefighters

Precautionary Measures Fire

Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

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Firefighting Instructions	Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products	Carbon oxides (CO, CO <sub>2</sub> ). Silicon oxides. Formaldehyde.
Other Information	Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment And Emergency Procedures

General Measures	Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges.
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#### 6.1.1. For Non-Emergency Personnel

Protective Equipment	Use appropriate personal protective equipment (PPE).
Emergency Procedures	Evacuate unnecessary personnel. Stop leak if safe to do so.

#### 6.1.2. For emergency responders

Protective Equipment	Equip cleanup crew with proper protection.
Emergency Procedures	Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area. Eliminate ignition sources.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and Materials for Containment and Cleaning Up

For Containment	As an immediate precautionary measure, isolate spill or leak area in all directions. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Ventilate area.
Methods for Cleaning Up	Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Use only non-sparking tools. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

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### SECTION 7: Handling And Storage

#### 7.1. Precautions for Safe Handling

Additional Hazards When Processed

Flammable vapors may accumulate in the head space of closed systems. Container may remain hazardous when empty. Handle empty containers with care because residual vapors are flammable.

Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, spray. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Handle empty containers with care because they may still present a hazard. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety procedures.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures

Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions

Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place. Store locked up/in a secure area.

Incompatible Materials

Strong acids, strong bases, strong oxidizers.

#### 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), or OSHA (PEL).

Xylenes (o-, m-, p- isomers) (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA ACGIH	Biological Exposure Indices (BEI)	1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: end of shift
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)		

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USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	20 mppcf (80 mg/m <sup>3</sup> /%SiO <sub>2</sub> )

### 8.2. Exposure Controls

Appropriate Engineering Controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released.

Personal Protective Equipment

Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials For Protective Clothing

Chemically resistant materials and fabrics. Wear fire/flamm resistant/retardant clothing.

Hand Protection

Wear chemically resistant protective gloves. Wear protective gloves.

Eye And Face Protection

Chemical safety goggles.

Skin And Body Protection

Wear suitable protective clothing.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information

When using, do not eat, drink or smoke.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	Liquid
Appearance	Black
Odor	Solvent
Odor Threshold	No data available
pH	No data available
Evaporation Rate	No data available
Melting Point	No data available
Freezing Point	No data available
Boiling Point	138 °C (280 °F)
Flash Point	27 °C (80 °F)
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Flammability (solid, gas)	Not applicable
Vapor Pressure	No data available
Relative Vapor Density at 20 °C	No data available
Specific Gravity	< 1
Solubility	No data available

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Partition Coefficient n-Octanol/Water No data available  
Viscosity No data available

#### 9.2. Other Information

VOC Content 20 - 40%

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

#### 10.2. Chemical Stability

Extremely flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

#### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

#### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

#### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Explosive hydrogen gas. Silicon oxides. Carbon oxides (CO, CO<sub>2</sub>). Will decompose above 150 °C (>300° F) releasing formaldehyde vapors. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

### SECTION 11: Toxicological Information

#### 11.1. Information on Toxicological Effects

Acute Toxicity (Oral) : Not classified  
Acute Toxicity (Dermal) : Harmful in contact with skin.  
Acute Toxicity (Inhalation) : Harmful if inhaled.

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ATE (Dermal)	1,617.65 mg/kg body weight
ATE (Vapors)	16.18 mg/l/4h
Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 Oral Rat	> 5000 mg/kg
LC50 Inhalation Rat	6247 ppm/4h (species: Sprague-Dawley)
ATE (Dermal)	1,100.00 mg/kg body weight
ATE (Vapors)	11.00 mg/l/4h
Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	> 4800 mg/kg
LD50 Dermal Rabbit	> 2.5 ml/kg
LC50 Inhalation Rat	36 g/m <sup>3</sup> (Exposure time: 4 h)
ATE (Vapors)	36.00 mg/l/4h
ATE (Dust/Mist)	36.00 mg/l/4h
Skin Corrosion/Irritation	Causes skin irritation.
Serious Eye Damage/Irritation	Causes serious eye irritation.
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified

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Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC Group	3
Reproductive Toxicity	: Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity (Single Exposure)	: May cause drowsiness or dizziness.
Specific Target Organ Toxicity (Repeated Exposure)	: Not classified
Aspiration Hazard	May be fatal if swallowed and enters airways.
Symptoms/Injuries After Inhalation	Inhalation is likely to cause adverse health effects including but not limited to: irritation, difficulty breathing, and unconsciousness. High concentrations may cause central nervous system depression such as dizziness, vomiting, numbness, drowsiness, headache, and similar narcotic symptoms.
Symptoms/Injuries After Skin Contact	Redness, pain, swelling, itching, burning, dryness, and dermatitis. This material is harmful through skin contact, and can cause adverse health effects or death in significant amounts. This material may be absorbed through the skin and eyes.
Symptoms/Injuries After Eye Contact	Contact causes severe irritation with redness and swelling of the conjunctiva.
Symptoms/Injuries After Ingestion	Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.
Chronic Symptoms	Suspected of damaging fertility or the unborn child.

## SECTION 12: Ecological Information

### 12.1. Toxicity

Ecology - General Toxic to aquatic life.

Xylenes (o-, m-, p- isomers) (1330-20-7)	
LC50 Fish 1	3.3 mg/l
EC50 Daphnia 1	3.82 mg/l (Exposure time: 48 h - Species: water flea)
LC50 Fish 2	2.661 (2.661 - 4.093) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
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

R-2100-2 Part B	
Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.
Xylenes (o-, m-, p- isomers) (1330-20-7)	
BCF Fish 1	0.6 (0.6 - 15)
Log Pow	2.77 - 3.15
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish 1	12400
Log Pow	5.1



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#### 12.4. Mobility In Soil

No additional information available

#### 12.5. Other Adverse Effects

Other Information Avoid release to the environment.

### SECTION 13: Disposal Considerations

#### 13.1. Waste Treatment Methods

Waste Disposal	Dispose of contents/container in accordance with local, regional, national, and international regulations.
Recommendations	
Additional Information	Handle empty containers with care because residual vapors are flammable.
Ecology - Waste Materials	Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

### SECTION 14: Transport Information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

#### 14.1. In Accordance with DOT

Proper Shipping Name	XYLENES SOLUTION
Hazard Class	3
Identification Number	UN1307
Label Codes	3
Packing Group	III
ERG Number	130



#### 14.2. In Accordance with IMDG

Proper Shipping Name	XYLENES SOLUTION
Hazard Class	3
Identification Number	UN1307
Packing Group	III
Label Codes	3
EmS-No. (Fire)	F-E
EmS-No. (Spillage)	S-D



#### 14.3. In Accordance with IATA

Proper Shipping Name	XYLENES SOLUTION
Packing Group	III
Identification Number	UN1307
Hazard Class	3
Label Codes	3
ERG Code (IATA)	3L



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### 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 - Specific target organ toxicity (single or repeated exposure) Health hazard - Reproductive toxicity Health hazard - Skin corrosion or Irritation Physical hazard - Flammable (gases, aerosols, liquids, or solids) Health hazard - Serious eye damage or eye irritation Health hazard - Acute toxicity (any route of exposure) Health hazard - Aspiration hazard
Xylenes (o-, m-, p- isomers) (1330-20-7)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	1 %

#### 15.2. US State Regulations

Xylenes (o-, m-, p- isomers) (1330-20-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Xylenes (o-, m-, p- isomers) (1330-20-7)	

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U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute  
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic  
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)  
U.S. - Colorado - Groundwater Quality Standards  
U.S. - Colorado - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues  
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Level Goals (MCLGs)  
U.S. - Colorado - Primary Drinking Water Regulations - Maximum Contaminant Levels (MCLs)  
U.S. - Connecticut - Drinking Water Quality Standards - Maximum Contaminant Levels  
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities  
U.S. - Florida - Drinking Water Standards - Volatile Organic Contaminants - Maximum Contaminant Levels (MCLs)  
U.S. - Georgia - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)  
U.S. - Idaho - Occupational Exposure Limits - TWAs  
U.S. - Illinois - Toxic Air Contaminants  
U.S. - Louisiana - Reportable Quantity List for Pollutants  
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants  
U.S. - Massachusetts - Allowable Ambient Limits (AALs)  
U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)  
U.S. - Massachusetts - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2  
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2  
RTK - U.S. - Massachusetts - Right To Know List  
U.S. - Massachusetts - Threshold Effects Exposure Limits (TELs)  
U.S. - Massachusetts - Toxics Use Reduction Act  
U.S. - Michigan - Occupational Exposure Limits - STELs  
U.S. - Michigan - Occupational Exposure Limits - TWAs  
U.S. - Michigan - Polluting Materials List  
U.S. - Minnesota - Chemicals of High Concern  
U.S. - Minnesota - Groundwater Health Risk Limits  
U.S. - Minnesota - Hazardous Substance List  
U.S. - Minnesota - Permissible Exposure Limits - STELs  
U.S. - Minnesota - Permissible Exposure Limits - TWAs  
U.S. - Missouri - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Nebraska - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - New Hampshire - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual  
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances  
U.S. - New Jersey - Environmental Hazardous Substances List  
U.S. - New Jersey - Primary Drinking Water Standards - Maximum Contaminant Levels - MCLs

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RTK - U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New Jersey - Special Health Hazards Substances List  
U.S. - New Jersey - Water Quality - Ground Water Quality Criteria  
U.S. - New Jersey - Water Quality - Practical Quantitation Levels (PQLs)  
U.S. - New Mexico - Water Quality - Standards for Ground Water of 10,000 mg/L TDS Concentration or Less  
U.S. - New York - Occupational Exposure Limits - TWAs  
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances  
U.S. - North Carolina - Control of Toxic Air Pollutants  
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour  
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour  
U.S. - North Dakota - Hazardous Wastes - Discarded Chemical Products, Off-Specification Species, Container and Spill Residues  
U.S. - North Dakota - Water Quality Standards - Human Health Value for Classes I, IA, II  
U.S. - Oregon - Permissible Exposure Limits - TWAs  
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups  
U.S. - Pennsylvania - Drinking Water - Maximum Contaminant Levels (MCLs)  
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
RTK - U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 24-Hour  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual  
U.S. - Rhode Island - Water Quality Standards - Acute Freshwater Aquatic Life Criteria  
All concentrations are expressed as percentages by weight unless the ingredient is a gas.  
U.S. - South Carolina - Maximum Contaminant Levels (MCLs)  
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations  
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories  
U.S. - Tennessee - Occupational Exposure Limits - STELs  
U.S. - Tennessee - Occupational Exposure Limits - TWAs  
U.S. - Texas - City of Austin - Aerosol Paint and Glue Restrictions  
U.S. - Texas - Drinking Water Standards - Maximum Contaminant Levels (MCLs)  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term  
U.S. - Utah - Drinking Water - Maximum Contaminant Levels (MCLs)  
U.S. - Washington - Dangerous Waste - Discarded Chemical Products List  
U.S. - Washington - Permissible Exposure Limits - STELs  
U.S. - Washington - Permissible Exposure Limits - TWAs  
U.S. - West Virginia - Water Quality - Groundwater Standards - Ceiling Concentrations  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica (68909-20-6)

U.S. - Texas - Effects Screening Levels - Long Term

U.S. - Texas - Effects Screening Levels - Short Term

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### Octamethylcyclotetrasiloxane (556-67-2)

U.S. - Maine - Chemicals of 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

## SECTION 16: Other Information, Including Date of Preparation or Last Revision

Date of Preparation or Latest Revision 07/12/2021

Other Information

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

GHS Full Text Phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:vapor)	Acute toxicity (inhalation:vapor) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H401	Toxic to aquatic life
H413	May cause long lasting harmful effects to aquatic life

NFPA Health Hazard

2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

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## Safety Data Sheet

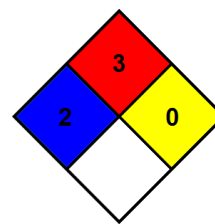
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA Fire Hazard

3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA Reactivity Hazard

0 - Material that in themselves are normally stable, even under fire conditions.



HMIS III Rating  
Health

3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given  
\* Chronic - Chronic (long-term) health effects may result from repeated overexposure

Flammability  
Physical

3 Serious Hazard  
0 Minimal Hazard

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