MOMENTIVE

MATERIAL SAFETY DATA SHEET

Version: 1.1 05/10/2012

SCS1002 Silicone Rubber Sealant

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer Name: Momentive performance material

260 Hudson River Rd Waterford NY 12188

Revised: 05/10/2012

Prepared by Product Regulatory Compliance

CHEMTREC 1-800-424-9300 **MSDS Contact** 1-888-443-9466

Information 4information@momentive.com

Chemical Family/Use: Sealant

Formula: Mixture

HMIS

Flammability: 1 Reactivity: 0 Health: 1

NFPA

Flammability: 1 Reactivity: 0 Health: 1

2. HAZARDS IDENTIFICATION

WHMIS CLASSIFICATION



Very Toxic Material Causing Other Toxic Effects Toxic Material Causing Other Toxic Effects

EMERGENCY OVERVIEW

WARNING! Irritating to eyes, respiratory system and skin. Contains octamethylcyclotetrasiloxane which may cause reproductive effects based on animal data.

Form: Solid Color: White Odor: Acetic acid.

Potential Health Effects

SUBCHRONIC (TARGET ORGAN)

Liver injury.; Reproductive hazard.

CHRONIC EFFECTS / CARCINOGENICITY

This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.



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ROUTES OF EXPOSURE

Dermal; Eye

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT(S)

PRODUCT COMPOSITION	CAS-NO.	WGT. %	
Methyltriacetoxysilane	4253-34-3	1 - 5 %	
Octamethylcyclotetrasiloxane	556-67-2	1 - 5 %	

Note(s): See Section 15 for HMIRC information.

4. FIRST AID MEASURES

INGESTION

If swallowed, do NOT induce vomiting. Give a glass of water.

SKIN

To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. If skin irritation occurs: Get medical advice/attention.

INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

EYES

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

5. FIRE-FIGHTING MEASURES

FLASH POINT: $> 93.3 \, ^{\circ}\mathrm{C}$; 200 $^{\circ}\mathrm{F}$ METHODEstimatedAutoignition Temperature:None

FLAMMABLE LIMITS LEL:

Not applicable

Not applicable



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SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE

Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA

All standard extinguishing agents are suitable.

SPECIAL FIRE FIGHTING PROCEDURES

Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Product releases acetic acid during application and curing. Adequate ventilation should be provided so that exposure limits are not exceeded. Avoid contact with eyes, skin, and clothing. Avoid accidental ingestion of this material. Wash hands and face before eating, drinking, smoking, using toilet facilities, or applying cosmetics.

Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the finger and hands. Keep out of reach of children. Keep container closed.

STORAGE

Keep out of the reach of children. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Eye wash facilities and emergency shower must be available when handling this product.



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RESPIRATORY PROTECTION

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

PROTECTIVE GLOVES

<u>None</u>

EYE AND FACE PROTECTION

None

OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

Exposure Guidelines

Component	CAS-No.	Source	Value
Octamethylcyclotetras	556-67-2	Z_INTL_OEL, REL	5 ppm
iloxane			

Consult local authorities for acceptable provincial values.

Absence of values indicates none found

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average

OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (°C): No data available.

VAPOR PRESSURE (20 C) (MM HG): No data available.

VAPOR DENSITY (AIR=1): No data available.

FREEZING POINT: No data available.

PHYSICAL STATE: Solid
ODOR: Acetic acid.

ODOR THRESHOLD:No data available.

COLOR: White

EVAPORATION RATE (BUTYL ACETATE=1): No data available.



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SPECIFIC GRAVITY: No data available.

DENSITY:ca. 1.040 g/cm3pH:No data available.

VOLATILE ORGANIC CONTENT: 1.5 %(m) **SOLUBILITY IN WATER (20 C):** Insoluble

SOLUBILITY IN ORGANIC SOLVENT (STATE Soluble in toluene

SOLVENT):

Partition Coefficient: n-octanol/water: No data available.

10. STABILITY AND REACTIVITY

Stability

Stable

HAZARDOUS POLYMERIZATION.

Hazardous polymerisation does not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

Carbon dioxide; Silicon dioxide.; Formaldehyde.; This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150'C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. A MSDS for formaldehyde is available from Momentive.

INCOMPATIBLE MATERIALS

<u>None</u>

CONDITIONS TO AVOID

None known.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL

Remarks: No data available.

Repeated dose toxicity

None

ACUTE DERMAL

Remarks: No data available.



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ACUTE INHALATION

Remarks: None known.

OTHER

Octamethylcyclotetrasiloxane

Ingestion: Rodents given large doses via oral gavage of octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size).

Inhalation: In inhalation studies, laboratory rodents exposed to octamethylcyclotetrasiloxane (300 ppm five days week, 90 days)developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liverweights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalationstudies utililizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical ofindustrial usage (5-10 ppm) showed no toxic effects in rodents.

Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestationand lactation) with octamethylcyclotetrasiloxane (D4). Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found.

Interim results from a two generation reproductive study in rats exposed to 500 and 700 ppm D4 (whole body inhalation, 70 daysprior to mating, through mating, gestation and lactation) resulted in a statistically significant decrease in live meanlitter size as well as extended periods of off-spring delivery (dystocia). These results were not observed at the 70 and 300ppm dosing levels.

Preliminary results from an ongoing 24-month combined chronic/oncogenicity study in rats exposed to 10, 30, 150, or700 ppm D4 showed test-article related effects in the kidney (male and female) and uterus of rats exposed for 12 to 24 months. These effects include increased kidney weight and severity of chronic nephropathy, increased uterine weight, increased incidence of endometrial cell hyperplasia, and an increased incidence of endometrial adenomas. All of theseeffects are limited to the 700 ppm exposure group.

These results have been shown to be rat-specific. Further studies are ongoing.

In developmental toxicity studies, rats and rabbits were exposed to octamethylcyclotetrasiloxane at concentrations up to 700 ppm and 500 ppm respectively. No teratogenic effects (birth defects) were observed in either study.

GENETIC TOXICITY IN VITRO
None
GENETIC TOXICITY IN VIVO
None



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SENSITIZATION

No data available.

SKIN IRRITATION.

No data available.

EYE IRRITATION

No data available.

MUTAGENICITY

No data available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

No data available.

DISTRIBUTION

No data available.

CHEMICAL FATE

No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Further Information: This product is not regarded as dangerous goods according to the

national and international regulations on the transport of dangerous

goods.

15. REGULATORY INFORMATION

Inventories

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Australia Inventory of Chemical

v (positive listing)

y (positive listing)

Substances (AICS)

EU list of existing chemical y (positive listing)

substances

Japan Inventory of Existing &

New Chemical Substances

(ENCS)

China Inventory of Existing y (positive listing)

Chemical Substances

Korea Existing Chemicals y (positive listing)

Inventory (KECI)

Canada DSL Inventory q (quantity restricted)
Canada NDSL Inventory n (Negative listing)
Philippines Inventory of y (positive listing)

Chemicals and Chemical

Substances (PICCS)

TSCA list y (positive listing) On TSCA Inventory

For inventories that are marked as quantity restricted or special cases, please contact Momentive.

Canadian Regulatory Information

WHMIS CLASSIFICATION

Very Toxic Material Causing Other Toxic Effects, Toxic Material Causing Other Toxic Effects

CPR Compliance

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

US Regulatory Information

SARA (311,312) HAZARD CLASS

Acute Health Hazard

16. OTHER INFORMATION

OTHER

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

,C = ceiling limit NEGL = negligible EST = estimated NF = none found



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NA = not applicable UNKN = unknown

NE = none established REC = recommended

ND = none determined V = recommended by vendor

SKN = skin TS = trade secret R = recommended MST = mist

NT = not tested STEL = short term exposure limit

ppm = parts per million ppb = parts per billion

By-product= reaction by-product, TSCA inventory status not required under 40 CFR part 720.30(h-2).