

SF1202**Decamethylcyclopentasiloxane****1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Manufactured By: Momentive performance material
260 Hudson River Rd
Waterford NY 12188

Revised: 05/26/2010
Preparer: PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS
CHEMTREC 1-800-424-9300

Chemical Family/Use: Silicone siloxane
Formula: Cyclic siloxane(s).

HMIS

Flammability: 2 Reactivity: 0 Health: 1

NFPA

Flammability: 2 Reactivity: 0 Health: 1

2. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

CAUTION! Combustible liquid and vapor.

Form: liquid**Color:** colourless**Odor:** mild**POTENTIAL HEALTH EFFECTS****INGESTION**

Not an anticipated route of exposure.

SKIN

No adverse effects are expected under normal conditions of use.

INHALATION

No adverse effects are expected under normal conditions of use.

EYES

No adverse effects are expected under normal conditions of use.

MEDICAL CONDITIONS AGGRAVATED

Liver disorders.

SUBCHRONIC (TARGET ORGAN)

Liver

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.

SF1202
Decamethylcyclopentasiloxane**ROUTES OF EXPOSURE**

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>PRODUCT COMPOSITION</u>	<u>CAS REG NO.</u>	<u>WGT. %</u>
<u>A. HAZARDOUS</u>		
Decamethylcyclopentasiloxane	541-02-6	60 - 100 %
Octamethylcyclotetrasiloxane	556-67-2	0.1 - 1 %

B. NON-HAZARDOUS**4. FIRST AID MEASURES****INGESTION**

Do NOT induce vomiting. If victim is conscious, give 2 glasses of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

SKIN

Wash off with soap and water. Get medical attention if symptoms occur.

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, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

NOTE TO PHYSICIAN

Treatment is symptomatic and supportive.

5. FIRE-FIGHTING MEASURES

FLASH POINT: 76.60 °C; 170 °F
METHOD: closed cup

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IGNITION TEMPERATURE: 392 °C; 738 °F
FLAMMABLE LIMITS IN AIR - LOWER (%): Unknown
FLAMMABLE LIMITS IN AIR - UPPER (%): Unknown

SENSITIVITY TO MECHANICAL IMPACT: No

SENSITIVITY TO STATIC DISCHARGE

Sensitivity to static discharge is expected; material has a flash point below 200 F.

EXTINGUISHING MEDIA

All standard extinguishing agents are suitable.

SPECIAL FIRE FIGHTING PROCEDURES

Combustible, 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**

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

7. HANDLING AND STORAGE**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Use ground strap and appropriate precautions for dispensing flammable liquids. Use only spark-proof and explosion-proof tools and equipment. Avoid contact with skin and eyes. Keep away from children. May generate formaldehyde at temperatures greater than 150 C (300 F). See Section 10 of MSDS for details. Attention: Not for injection into humans.

STORAGE

Store away from heat, sources of ignition, and incompatibles. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS**

Eyewash stations; Showers; Ventilation and other forms of engineering controls are preferred for controlling exposures. Respiratory protection may be needed for non-routine or emergency situations.

RESPIRATORY PROTECTION

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved

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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

Impermeable or chemical resistant gloves.

EYE AND FACE PROTECTION

Safety glasses with side-shields

OTHER PROTECTIVE EQUIPMENT

Wear suitable protective clothing and eye/face protection.

Exposure Guidelines

Component	CAS RN	Source	Value
Octamethylcyclotetrasiloxane	556-67-2	Z_INTL_OELREL	5 ppm
Decamethylcyclopentasiloxane	541-02-6	Z_INTL_OELREL	10 ppm

Absence of values indicates none found

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average; INTL REL - Internal Recommended Exposure Limit

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 & F:	210.00 °C; 410 °F
VAPOR PRESSURE (20 C) (MM HG):	3.01
VAPOR DENSITY (AIR=1):	no data available
FREEZING POINT:	< -40 °C; -40 °F
PHYSICAL STATE:	liquid
ODOR:	mild
COLOR:	colourless
EVAPORATION RATE (BUTYL ACETATE=1):	< 1
SPECIFIC GRAVITY (WATER=1):	0.95
DENSITY:	0.95 g/cm ³
ACID / ALKALINITY (MEQ/G):	<3 PPM
pH:	no data available
SOLUBILITY IN WATER (20 C):	insoluble
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT):	Soluble in toluene
VOLATILE ORGANIC CONTENT:	100.00 %(m)
VOC EXCL. H₂O & EXEMPTS (G/L):	0 g/l

SF1202**Decamethylcyclopentasiloxane****10. STABILITY AND REACTIVITY****STABILITY**

Stable

HAZARDOUS POLYMERIZATION

Will not occur.

HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS

Carbon dioxide (CO₂); formaldehyde; Carbon monoxide; Silicon dioxide.; 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.

INCOMPATIBILITY (MATERIALS TO AVOID)

None known.

CONDITIONS TO AVOID

Keep away from heat and sources of ignition.

11. TOXICOLOGICAL INFORMATION**ACUTE ORAL**

LD50; Species: rat; > 5,000 mg/kg;

ACUTE DERMAL

LD50; Species: rabbit; > 1,000 mg/kg;

ACUTE INHALATION

LC50; Species: rat; 8.67 mg/l;

OTHER

Decamethylcyclopentasiloxane „Rodents repeatedly exposed to decamethylcyclopentasiloxane (D5) via inhalation or ingestion developed increased liver weights relative to unexposed control animals. When the exposure was stopped, livers returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Liver enlargement was due to an increase in metabolizing enzymes, and a temporary increase in the number and size of normal cells (hyperplasia and hypertrophy). These biochemical pathways are more sensitive in rodents than in humans. Inhalation exposures that are typical in industrial use (5-10 ppm) showed no toxic effects in rodents. A two-year combined chronic toxicity and carcinogenicity inhalation study was conducted with decamethylcyclopentasiloxane (D5) in Fisher-344 rats by whole body inhalation. A statistically significant increase in the trend for uterine endometrial tumors was observed in female rats exposed for 24 months at the highest dose level of 160 ppm. The same effects were not seen at the other dose levels of 10 and 40 ppm. No adverse effects were seen at male rats at any level. Whether or not this increase in incidence is truly related to the exposure to D5 is questionable and yet to be determined.

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Based on our present knowledge, it is unlikely that industrial, commercial, or consumer uses of products containing D5 would result in a significant risk to humans. Momentive's Recommended Exposure Guideline for D5 is 10 ppm.

SENSITIZATION

Test Type: Magnusson-Kligmann; Species: guinea pig; Result: negative

SKIN IRRITATION

Species: rabbit; Result: No skin irritation

EYE IRRITATION

Species: rabbit ; Result: No eye irritation

MUTAGENICITY

Salmonella/Microsome-test: No indication of mutagenic effects.

OTHER EFFECTS OF OVEREXPOSURE

Octamethylcyclotetrasiloxane Ingestion: Rodents given large doses via oral gavage of octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appeared 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, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial 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, gestation and 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 days prior to mating through mating, gestation and lactation) resulted in a statistically significant decrease in live mean litter size as well as extended period of off-spring delivery (dystocia). These results were not observed at the 70 and 300 ppm dosing levels. Preliminary results from an ongoing 24-month combined chronic/oncogenicity study in rats exposed to 10, 30, 150 or 700 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 these effects were limited to the 700 ppm exposure group. The relevance of this data to humans is unclear. 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. Decamethylcyclopentasiloxane Ingestion: Rodents given doses via oral gavage of decamethylpentasiloxane (100 mg/kg/day for females, 400 mg/kg/day for males, 14 days) developed increased liver weights relative to unexposed control animals. Inhalation: In inhalation studies, laboratory rodents exposed to decamethylpentasiloxane (120 ppm five days/week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents.

SF1202
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This product is a small, lipophilic, low molecular weight volatile compound. Due to its high volatility, product has a short half-life in the aquatic compartment, and is unlikely to be found in the terrestrial compartment. As a low molecular weight lipophilic compound it has the potential to bioaccumulate.

DISTRIBUTION

no data available

CHEMICAL FATE

no data available

13. DISPOSAL CONSIDERATIONS**DISPOSAL METHOD**

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

14. TRANSPORT INFORMATION

DOT SHIPPING NAME:	Combustible liquid, n.o.s.(Decamethylcyclopentasiloxane)
DOT HAZARD CLASS:	CBL
DOT LABEL (S):	NON
UN/NA NUMBER:	NA 1993
PACKING GROUP:	III

Further Information: This product is Combustible as defined by the US Department of Transport (DOT). It is regulated for transport in the US in container > 119 gallons. The product is not regulated for transport by the IATA, ADR/RID, ADNR or the IMDG regulations.

15. REGULATORY INFORMATION**Inventories**

Australia Inventory of Chemical Substances (AICS)	y (positive listing)
EU list of existing chemical substances	y (positive listing)
Japan Inventory of Existing & New Chemical Substances (ENCS)	y (positive listing)

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China Inventory of Existing Chemical Substances	y (positive listing)	
Korea Existing Chemicals Inventory (KECI)	y (positive listing)	
Canada DSL Inventory	y (positive listing)	
Canada NDSL Inventory	n (Negative listing)	
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	y (positive listing)	
TSCA list	y (positive listing)	On TSCA Inventory

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

US Regulatory Information**SARA (311,312) HAZARD CLASS**

Acute Health Hazard; Chronic Health Hazard; Fire Hazard

SARA (313) CHEMICALS**CALIFORNIA PROPOSITION 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Regulatory Information**WHMIS HAZARD CLASS**

D2A - Very Toxic Material Causing Other Toxic Effects

B3 - Combustible Liquid

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 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).