



# SAFETY DATA SHEET

## FOR INDUSTRIAL USE ONLY

## LSR TOPCOAT B

## Section 1. Product and company identification

**Product name** : LSR TOPCOAT B

Chemical name : Silicone

Manufacturer/Importer/

Momentive Performance Materials - Sistersville

**Distributor Information** 

10851 Energy Highway FRIENDLY WV 26146

Contact person : 4information@momentive.com

**Telephone** : General information

+1 - 800 - 295 - 2392

**Emergency telephone number** 

**Supplier** : CHEMTREC

1-800-424-9300

## Section 2. Hazards identification

Classification of the substance or

mixture

TOXIC TO REPRODUCTION - Category 2

**GHS label elements** 

Hazard pictograms

Signal word : Warning

**Hazard statements** : H361f Suspected of damaging fertility.

### **Precautionary statements**

General : Not applicable.

**Prevention** : Obtain special instructions before use.

Do not handle until all safety precautions have been read and

understood.

Use personal protective equipment as required.

**Response** : IF exposed or concerned:

Get medical attention.

Storage : Store locked up.

**Disposal**: P501Dispose of contents and container in accordance with all local,

regional, national and international regulations.

LSR Topcoat B Page: 2/12

Other hazards which do not result in classification

None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture **Chemical name** : Not available

Hazardous ingredients	% by weight	CAS
		number
DISPERSING AGENT SI 205	1 - 5	67923-19-7
Octamethylcyclotetrasiloxane	1 - 5	556-67-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

## Description of necessary first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the
		upper and lower eyelids. Check for and remove any contact lenses.

Continue to rinse for at least 10 minutes. Get medical attention if

irritation occurs.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable

for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such

as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove

contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean

shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at

rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such

as a collar, tie, belt or waistband.

## Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

Protection of first aid personnel : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth to mouth resuscitation

give mouth-to-mouth resuscitation.

LSR Topcoat B Page: 3/12

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media Unsuitable extinguishing media

- : Use dry chemical, CO2, alcohol-resistant foam or water spray (fog).
- : water jet

Specific hazards arising from the chemical

Hazardous thermal decomposition products

- In a fire or if heated, a pressure increase will occur and the container may burst.
- Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides

Special protective actions for firefighters Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters

For non-emergency personnel

: Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

## Personal precautions, protective equipment and emergency procedures

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** 

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for

LSR Topcoat B Page: 4/12

disposal according to local regulations (see section 13 of SDS). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### **Protective measures**

: Put on appropriate personal protective equipment (see section 8 of SDS). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

# Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

# Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

#### **Control parameters**

### **Occupational exposure limits**

None.

**Appropriate engineering controls** 

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** 

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## **Individual protection measures**

### **Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

LSR Topcoat B Page: 5/12

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

#### **Skin protection**

**Hand protection** 

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** 

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** 

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

### **Appearance**

Flash point

Physical state : Liquid Color : Off-white.

Odor: Faint odor.Odor threshold: Not availablepH: Not availableMelting point: Not availableBoiling point: Not available

Burning time : Not available
Burning rate : Not available
Evaporation rate : Not available
Flammability (solid, gas) : Not available

Lower and upper explosive : Lower: Not available (flammable) limits : Upper: Not available

Vapor pressure : Not available Vapor density : Not available

**Relative density** : 0.99

**Density** : 0.99 g/cm<sup>3</sup>

**Solubility** : Insoluble

**Solubility in water** : Not available **Partition coefficient: n-** : Not available

octanol/water

**Auto-ignition temperature** : Not available

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76 °C (168.80 °F)

LSR Topcoat B Page:6/12

**Decomposition temperature** : Not available **SADT** : Not available

Viscosity : Dynamic: Not available Kinematic: Not available

#### Other information

No additional information.

## Section 10. Stability and reactivity

**Reactivity** : Stable under normal conditions.

**Chemical stability** : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions

will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not

pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Product generates flammable gas on

contact with acids, bases or oxidizing substances.

**Incompatible materials** : No specific data.

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

## Information on toxicological effects

## **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxar	ne			
	LD50 Oral	Rat	4,800 mg/kg OECD-Guideline 401 (Acute Oral Toxicity)	-
	LC50 Inhalation	Rat	> 12.1 mg/l	4 h
	LC50 Inhalation	Rat	36 mg/l OECD Test Guideline 403	4 h
	LD50 Dermal	Rat	> 2,400 mg/kg OECD Test Guideline 402	-

Conclusion/Summary : Not determined

## **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Octamethylcyclotetrasiloxane	Skin	Rat			-
	OECD-				
	Guideline				
	404 (Acute				
	Dermal				
	Irritation/C				

LSR Topcoat B Page:7/12

	orrosion)				
Remarks:	Non-irritating	to the skin.			
	eyes OECD- Guideline 405 (Acute Eye Irritation/C orrosion)	Rabbit			-
Remarks:	Non-irritating to the eyes.				

Conclusion/Summary

Skin: Not determinedeyes: Not determinedRespiratory: Not determined

## **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
Octamethylcyclotetrasiloxane	-	Guinea pig	Not sensitizing OECD-
			Guideline 406 (Skin
			Sensitisation)

Conclusion/Summary

Skin : Not determined
Respiratory : Not determined

## Mutagenicity

Product/ingredient name	Test	Experiment	Result
Octamethylcyclotetrasiloxane	OECD-Guideline 471 (Genetic	In vitro	Negative
	Toxicology: Salmonella		
	typhimurium, Reverse		
	Mutation Assay)		
	Mouse Lymphoma Assay	In vitro	Negative
	(OECD Guidline 476)		
	OECD-Guideline 474 (Genetic	In vivo	Negative
	Toxicology: Micronucleus		
	Test)		

Conclusion/Summary : Not determined

## Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxane	Inhalation -	Rat - Female	150 mg/kg	24 months
	OECD 453			
Remarks:	NOAEC			
	Inhalation -	Rat - Male	> 700 mg/kg	24 months
	OECD 453			
Remarks:	NOAEC			

Conclusion/Summary : Not determined

## **Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Octamethylcyclotetrasi loxane	-	-	-	Rat	Inhalation: 300 mg/kg OECD 416	-
Remarks:	NOAEL parents					
	-	-	-	Rat	Inhalation:	-

LSR Topcoat B Page:8/12

			300 mg/kg OECD 416	
Remarks:	NOAEL F1			

Conclusion/Summary : Not determined

### **Teratogenicity**

Product/ingredient name	Result	Species	Dose	Exposure	
Octamethylcyclotetrasiloxane	- Inhalation	Rabbit	500 mg/kg	18 days	
	OECD Test				
	Guideline 414				
Remarks:	NOAEL				
	- Inhalation	Rabbit	300 mg/kg	18 days	
	OECD Test				
	Guideline 414				
Remarks:	NOAEL maternity				

Conclusion/Summary : Not determined

### **Specific target organ toxicity (single exposure)**

Not available

### **Specific target organ toxicity (repeated exposure)**

Not available

### **Aspiration hazard**

Not available

**Information on the likely routes of** :

exposure

Not available

## Potential acute health effects

Eye contact: No known significant effects or critical hazards.Inhalation: No known significant effects or critical hazards.Skin contact: No known significant effects or critical hazards.Ingestion: No known significant effects or critical hazards.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

**Inhalation** : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact** : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

**Ingestion** : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

#### Delayed and immediate effects and also chronic effects from short and long term exposure

### Short term exposure

Potential immediate effects : Not available
Potential delayed effects : Not available

LSR Topcoat B Page: 9/12

#### Long term exposure

Potential immediate effects: Not availablePotential delayed effects: Not available

## Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Octamethylcyclotetrasiloxa	NOAEC	Rat	150 mg/kg	24 months
ne	Inhalation		OECD 453	
Remarks:	NOAEC			
	NOAEL	Rabbit	> 1 mg/kg	3 weeks
	Dermal		OECD 410	
Remarks:	NOAEL			

Conclusion/Summary : Not determined

General: No known significant effects or critical hazards.Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.Teratogenicity: No known significant effects or critical hazards.Developmental effects: No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

#### Numerical measures of toxicity

#### **Acute toxicity estimates**

Not available

## Other information

Octamethylcyclotetrasiloxane (D4) Ingestion: Rodents given large doses via oral gavage of Octamethylcyclotetrasiloxane (1600mg/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, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. This response in rats, which does not affect the animal's health, is well-documented and widely recognized. It is related to an increase of liver enzymes that metabolize and eliminate a material from the body. The increased liver weight reverses even while the D4 exposure continues. The finding is not adverse, but is considered a natural adaptive change in rats, and does not represent a hazard to humans. 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 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. A two-year, combined chronic/carcinogenicity study, during which rats were exposed to D4 by inhalation, data showed a statistically significant increase in a benign uterine tumor in female rats exposed at the highest level--a level much higher than the low levels that consumers or workers may encounter. An expert panel of independent scientists who have reviewed the results of this research concur that the finding seen in the two-year study occurred through a biological pathway that is specific to the rat and is not relevant to humans. Therefore, this observed effect does not indicate a potential health hazard to humans. In developmental toxicity studies, rats and rabbits were exposed to D4 at concentrations up to 700 ppm and 500 ppm, respectively. No teratogenic effects (birth defects) were observed in either study.

## Section 12. Ecological information

LSR Topcoat B Page: 10/12

### **Ecotoxicity**

Conclusion/Summary : Not available

### Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
octamethylcyclotetrasil oxane	310 Ready Biodegradability - CO <sub>2</sub> in Sealed Vessels (Headspace Test)	3.7 % - 29 d		Activated sludge
Remarks:	Not readily biodegradable.			

Conclusion/Summary : Not available

#### **Bioaccumulative potential**

Product/ingredient name	Species	Exposure	LogPow	BCF	Potential
Octamethylcyclotetrasiloxane	Fathead	28 d		12.40	low
	minnow				

#### **Mobility in soil**

Soil/water partition coefficient

(KOC)

: Not available

Other adverse effects : No known significant effects or critical hazards.

#### **Other information**

Octamethylcyclotetrasiloxane (D4) meets the current REACh Annex XIII criteria for PBT and vPvB. However, D4 does not behave similarly to known PBT/vPvB substances. The silicones industries interpretation of the available data is that the weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

## **Section 13. Disposal considerations**

## Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or

LSR Topcoat B Page: 11/12

rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## **Section 14. Transport information**

**DOT SHIPPING NAME:** Combustible liquid, n.o.s.

DOT HAZARD CLASS:CBLDOT LABEL (S):NONUN/NA NUMBER:NA 1993PACKING GROUP:III

Special precautions for user

: This product is Combustible as defined by the US Department of Transportation (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. As a result of the potential formation of hydrogen gas under certain conditions, Momentive Performance Materials recommends that this product should be shipped using a mode of transportation other than air (IATA-C, IATA-P).

## 15.Regulatory information

#### **United States**

U.S. Federal regulations : United States - TSCA 12(b) - Chemical export notification: None

required.

United States - TSCA 5(a)2 - Final significant new use rules: Not

listed

United States - TSCA 5(a)2 - Proposed significant new use rules:

Not listed

United States - TSCA 5(e) - Substances consent order: Not listed

#### **SARA 311/312**

Classification : Delayed (chronic) health hazard

<u>California Prop. 65:</u> : None required.

**Canada** 

WHMIS (Canada) : Not controlled under WHMIS (Canada).

## **International regulations**

International lists : Japan inventory: All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted. **Canada inventory:** All components are listed or exempted.

**Philippines inventory (PICCS):** All components are listed or exempted. **United States inventory (TSCA 8b):** All components are listed or exempted.

Taiwan inventory (CSNN): At least one component is not listed.

LSR Topcoat B Page: 12/12

## Section 16. Other information

Hazardous Material Information System III (U.S.A.):

Health	0
Flammability	2
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

Full text of abbreviated H

statements

Not applicable.

### **History**

Date of printing: 07/21/2015Date of issue/Date of revision: 04/16/2015Date of previous issue: 00/00/0000

Version : 1.0

Prepared by : Product Safety Stewardship Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

UN = United Nations

**References** : Not available

#### Notice to reader

Unless otherwise specified in section 1, Momentive Products are intended for industrial application only. They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable contraceptives Keep out of the reach of children.

### **Further Information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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