

SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

NIAX* SILICONE L-580

Section 1. Identification

Product name : NIAX* SILICONE L-580

MSDS Number : 000000060905

Chemical name: Polyalkyleneoxidemethylsiloxane CopolymerMaterial uses: Used in the manufacturing of polyurethane foam.

Manufacturer/Importer/Distri

butor Information

Momentive Performance Materials GmbH Chempark Leverkusen Gebaeude V7

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Germany

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1.4

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1235239671

Section 2. Hazards identification

Classification of the substance or

mixture

SPECIFIC TARGET ORGAN TOXICITY (REPEATED

EXPOSURE) - Category 2

GHS label elements

Hazard pictograms

Signal word : Warnin

Hazard statements : May cause damage to organs through prolonged or repeated

exposure

Precautionary statements

General : Not applicable.

Prevention : Do not breathe vapor.

Response : Get medical attention if you feel unwell.

Storage : Not applicable.

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

regional, national and international regulations.

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Other hazards which do not result in classification

None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Chemical name : Polyalkyleneoxidemethylsiloxane Copolymer

Hazardous ingredient name	% by weight	CAS number
Polyalkylene Oxide	10 - 30	Trade Secret
Octamethylcyclotetrasiloxane	1 - 10	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.

Chemical formula : Not available

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

following exposure or if feeling unwell.

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

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Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Over-exposure signs/symptoms

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

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.

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

Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are

formed due to oxidative degradation.

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

Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece

operated in positive pressure mode.

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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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 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 breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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,

Store in accordance with local regulations. Store in original

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including any incompatibilities

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.

Recommended monitoring

procedures

:

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.

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

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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

Physical state : Liquid

Color colorless. / Yellow

Odor : musty

Odor threshold: Not availablepH: Not availableMelting point: <0 °C (32.00 °F)</th>

Boiling point : > 150 °C (302.00 °F) Copolymer.

Flash point : 97 °C (206.60 °F) (ASTM D 93)

Burning time : Not available **Burning rate** : Not available

Evaporation rate : < 1(n-Butyl acetate=1)

Flammability (solid, gas) : Not available

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

Vapor pressure : < 1.33 hPa @ 20 °C (68.00 °F)

Vapor density : 1 [Air = 1]

Relative density : Not available **Density** : 1.0300 g/cm3

Solubility : Not available **Solubility in water** : Soluble

Partition coefficient: n- : Not available

octanol/water

Auto-ignition temperature: Not availableDecomposition temperature: Not availableSADT: 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 : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition : Under normal conditions of storage and use, hazardous

products decomposition products should not be produced.

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SADT : Not available

Section 11. Toxicological information

<u>Information on toxicological effects</u>

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure		
Octamethylcyclotetrasiloxane						
	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	-		
Product Toxicological Data						
	LD50 Oral	Rat - Male	19,000 mg/kg	-		
	LD50 Dermal	Rat - Male	> 16,000 mg/kg	-		

Conclusion/Summary : Not available

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Product Toxicological Data	Skin	Rabbit			-
Remarks:	Non-irritating	to the skin.			
	eyes	Rabbit			-
Remarks:	Non-irritating	to the eyes.			
Octamethylcyclotetrasiloxane Remarks:	Skin OECD- Guideline 404 (Acute Dermal Irritation/C orrosion) Non-irritating	Rat			-
Kellul KS	eyes OECD- Guideline 405 (Acute Eye Irritation/C orrosion)	Rabbit			-
Remarks:	Non-irritating	to the eyes.		•	•

Conclusion/Summary

Skin: Not availableeyes: Not availableRespiratory: Not available

Sensitization

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

Conclusion/Summary

Skin: Not availableRespiratory: Not available

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 available

Carcinogenicity

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

Conclusion/Summary : Not available

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Octamethylcyclotetrasi loxane	-	-	-	Rat	Inhalation: 300 mg/kg OECD 416	-
Remarks:	NOAEL paren	ts				
	-	-	-	Rat	Inhalation: 300 mg/kg OECD 416	-
Remarks:	NOAEL F1	•				

Conclusion/Summary : Not available

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			

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Remarks:	NOAEL maternity
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Conclusion/Summary : Not available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Polyalkylene Oxide			

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Polyalkylene Oxide			

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

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

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	Dermal	OECD 410	
Remarks:	NOAEL		

Conclusion/Summary : Not available

General : May cause damage to organs through prolonged or repeated

exposure

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: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available

Other information : This material was negative in a Salmonella Typhimurium/

Escherichia coli mutagenicity assay.

Section 12. Ecological information

Toxicity

Conclusion/Summary : Not available

Persistence/degradability

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

Conclusion/Summary : Not available

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Octamethylcyclotetrasiloxane		12.40	low

Mobility in soil

Soil/water partition coefficient

(KOC)

: Not available

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever

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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 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. See Section 8 for information on appropriate personal protective equipment.

Section 14. Transport information

*PG: Packing group

Special precautions for user

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

No known specific national and/or regional regulations applicable to this product (including its ingredients).

International regulations

International lists

Australia inventory (AICS) All components are listed or exempted.

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.

New Zealand Inventory (NZIoC) 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) All components are listed or exempted.

Section 16. Other information

History

Date of printing: 2016/11/28Date of issue/Date of revision: 2015/12/09Date of previous issue: 2015/08/06Version: 1.3

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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)

UN = United Nations

References : Not available

Notice to reader

Unless otherwise specified in section 1.2, 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.

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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