

MAGNASOFT NFR-A

SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

GHS Product identifier: MAGNASOFT NFR-A

Recommended use of the chemical and restrictions on use

Recommended use: Industrial use Manufacture of textiles

Recommended restrictions: Not known.

Supplier's details

Manufacturer/Importer/Distributor Information	: Momenive Performance Materials GmbH Chempark Leverkusen Gebaeude V7 DE - 51368 Leverkusen Germany
Contact person	: MomeniveEMEA.productsteward@momenive.com
Telephone	: General information 00800.4321.1000 (Customer Service Centre)
1.4 Emergency telephone number	: Europe, Israel & All other: +44 (0) 1235239670; Middle East:+44 (0) 1235239671

2. Hazard(s) identification

GHS classification of substance or mixture, and national or regional information:

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

GHS label elements

Hazard symbol(s):



Signal Word: Warning

Hazard Statement(s): Causes skin irritation.
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

MAGNASOFT NFR-A

Prevention:	Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Specific treatment (see on this label). Take off contaminated clothing.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Substance(s) formed under the conditions of use:	Aqueous emulsion of modified polydimethylsiloxane, emulsifier and preservatives.															
Mixtures																
<table border="1"> <thead> <tr> <th>Chemical Identity</th> <th>CAS number</th> <th>Concentration*</th> </tr> </thead> <tbody> <tr> <td>Amino functional silicone</td> <td>Trade secret</td> <td>20 - 30%</td> </tr> <tr> <td>Octamethylcyclotetrasiloxane</td> <td>556-67-2</td> <td>1.0 - 10%</td> </tr> <tr> <td>Ethanol</td> <td>64-17-5</td> <td>1.0 - 10%</td> </tr> <tr> <td>BENZOMETHANAMINIUM, N-DODECYL-N,N-DIMETHYLCHLORIDE</td> <td></td> <td>0.1 - 1%</td> </tr> </tbody> </table>		Chemical Identity	CAS number	Concentration*	Amino functional silicone	Trade secret	20 - 30%	Octamethylcyclotetrasiloxane	556-67-2	1.0 - 10%	Ethanol	64-17-5	1.0 - 10%	BENZOMETHANAMINIUM, N-DODECYL-N,N-DIMETHYLCHLORIDE		0.1 - 1%
Chemical Identity	CAS number	Concentration*														
Amino functional silicone	Trade secret	20 - 30%														
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BENZOMETHANAMINIUM, N-DODECYL-N,N-DIMETHYLCHLORIDE		0.1 - 1%														

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: ** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

(1) The respirable particle(s) listed above are inextricably bound within the polymer matrix, and therefore does not present an inhalation hazard during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

4. First-aid measures

Description of necessary first-aid measures

Ingestion:	Do NOT induce vomiting. Give small amounts of water to drink. Seek medical attention.
Inhalation:	Move to fresh air. After inhalation of aerosol/mist seek medical advice immediately.
Skin Contact:	Wash the skin immediately with soap and water. Contact physician if irritation continues.

MAGNASOFT NFR-A

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician for specific advice.

Most important symptoms/effects, acute and delayed

Symptoms: Treatment is symptomatic and supportive.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

General Fire Hazards: The product is not flammable due to an emulsion with water. If oils in it burns, extinguish using extinguishants listed.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: All standard extinguishing agents are suitable.

Unsuitable extinguishing media: water jet

Specific hazards arising from the chemical: No data available.

Special protective action for fire fighters

Special fire fighting procedures: Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Avoid contact with eyes, skin, and clothing. Use personal protective equipment. Avoid inhalation of vapors and spray mists. Handle and open container with care. Keep container tightly closed and in a well-ventilated place. Caution: Contaminated surfaces may be slippery. Do not taste or swallow. Do not breathe mist. Avoid contact with skin and eyes. Static electricity and formation of sparks must be prevented.

Environmental Precautions: Do not allow runoff to sewer, waterway or ground.

Methods and material for containment and cleaning up: Put in an empty container for recovery after preventing spill by sand or sandbags,if the amount of spill is large. Put in an empty container for recovery after wiping or soaking up in an inert material,if the amount of spill is small.

Notification Procedures: Remove sources of ignition.

MAGNASOFT NFR-A

7. Handling and storage

Precautions to ensure safe handling:

Aerosols of this product have a high potential for inhalative toxicity. Therefore, any exposure must be avoided while spraying the product and its mixtures. It is therefore strictly necessary to wear respiratory protection while spraying.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, well-ventilated place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Ethanol	TWA	1,000 ppm 1,900 mg/m ³	Thailand. OELs (DLPW Notification Re: Occupational Exposure Limits for Hazardous Chemicals) (03 2001)
Ethanol	STEL	1,000 ppm	US. ACGIH Threshold Limit Values (03 2015)

This product contains one or more substances with an occupational exposure limit. However, the respirable particle(s) of this/these substance(s) are inextricably bound within the polymer matrix. Therefore, we do not expect an exposure to this/these substance(s) during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

Biological Limit Values

None of the components have assigned exposure limits.

Appropriate Engineering Controls:

Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection: Safety glasses with side shields

Skin Protection

Hand Protection: No data available.

Other: Wear suitable protective clothing and eye/face protection.

Respiratory Protection: Breathing apparatus needed only when aerosol or mist is formed. Gas mask with organic vapor canister and dust and mist filter.

Hygiene measures: Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices. When using do not eat, drink or smoke. Wash hands after handling. Do not breathe vapour/aerosol.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Color: Milky white

Odor: Odorless

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MAGNASOFT NFR-A

Odor threshold:	No data available.
pH:	> 7
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	100 °C
Flash Point:	> 100 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	No data available.
Relative density:	1
Solubility(ies)	
Solubility in water:	Dispersible
Solubility (other):	No data available.
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No decomposition if stored and applied as directed.
SADT:	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	No data available.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Do not freeze.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	Carbon oxides Nitrogen 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.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	No data available.
Inhalation:	No data available.
Skin Contact:	No data available.

MAGNASOFT NFR-A

Eye contact: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Octamethylcyclotetrasiloxane LD 50 (Rat): 4,800 mg/kg (OECD-Guideline 401 (Acute Oral Toxicity)) Not classified

Dermal

Product:

Not classified for acute toxicity based on available data.

Specified substance(s):

Octamethylcyclotetrasiloxane LD 50 (Rat): > 2,400 mg/kg (OECD Test Guideline 402)
Not classified

Inhalation

Product:

Not classified for acute toxicity based on available data.

Specified substance(s):

Octamethylcyclotetrasiloxane LC50 (Rat, 4 h): 36 mg/l (OECD Test Guideline 403)

Ethanol

LC50 (Mouse, 4.00 h): 39 mg/l
LC50 (Rat, 0.17 h): 38.3 mg/l

Repeated dose toxicity

Product:

No data available.

Skin Corrosion/Irritation

Product:

No data available.

Serious Eye Damage/Eye Irritation

Product:

No data available.

Respiratory or Skin Sensitization

Product:

No data available.

Carcinogenicity

Product:

No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Ethanol

Overall evaluation: 1. Carcinogenic to humans. Overall evaluation: 1.
Carcinogenic to humans.

MAGNASOFT NFR-A

ACGIH Carcinogen List:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s):

Octamethylcyclotetrasiloxane Ames-Test (OECD-Guideline 471 (Genetic Toxicology: *Salmonella typhimurium*, Reverse Mutation Assay)): negative (not mutagenic)
Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

In vivo

Product: No data available.

Specified substance(s):

Octamethylcyclotetrasiloxane Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)) Inhalation (Rat, male and female): negative

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects:

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

MAGNASOFT NFR-A

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.

12. Ecological information**Ecotoxicity****Acute hazards to the aquatic environment****Fish**

Product: No data available.

Specified substance(s):

Ethanol
LC50 (No data available., 96 h): 15,400 mg/l
LC50 (Pimephales promelas, 96 h): 14,200 mg/l

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment**Fish**

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability**Biodegradation**

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential**Bioconcentration Factor (BCF)**

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility

Mobility in soil: No data available.

MAGNASOFT NFR-A

Known or predicted distribution to environmental compartments

Amino functional silicone	No data available.
Octamethylcyclotetrasiloxane	No data available.
Ethanol	No data available.
BENZOMETHANAMINIUM, N-DODECYL-N,N-DIMETHYLCHLORIDE	No data available.

Other adverse effects: No data available.

13. Disposal considerations

General information: Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

Disposal methods

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. The generation of waste should be avoided or minimized wherever possible. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

Contaminated Packaging: Dispose of as unused product.

14. Transport information

ADR

Not regulated.

RID

Not regulated.

IATA

Not regulated.

IMDG

Not regulated.

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 and the IBC Code

Not applicable

15. Regulatory information

MAGNASOFT NFR-A

Safety, health and environmental regulations specific for the product in question

Thailand. Hazardous Substances Prohibited from On-line Notification System (Notification of Ministry of Industry, B.E. 2547)

Not Regulated

Thailand. List of Hazardous Substances (Notification of Ministry of Industry Re: List of Hazardous Substances B.E. 2556, Annex: Schedules 1 - 6)

This product is classified under DIW Annex 5.6 Thailand Hazardous Act B.E.2535

Thailand. Hazardous Substances under Chapter 3, Duties and Civil Liabilities (Notification of Ministry of Industry Re: Hazardous Substances under Chapter 3 of Hazardous Substances Act)

Sodium Hydroxide (Caustic Soda)	SECTION 3: Dangerous articles specifically packed in container by the manufacturer or with the condition at the time of importation or being finished products of the manufacturer or with the condition at the time of importation and the said container is of unsuitable condition and may cause damages.
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Thailand. Reportable Hazardous Substances (Notification of Ministry of Industry Re: Bases respecting report of quantity of hazardous materials under Department of Industrial Works, B.E. 2547)

Sodium Hydroxide (Caustic Soda)	Listed.
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International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia AICS:	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	y (positive listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inv. Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (Negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: None.
New Zealand Inventory of Chemicals:	n (Negative listing)	Remarks: None.
Taiwan Chemical Substance Inventory:	y (positive listing)	Remarks: None.

MAGNASOFT NFR-A

16. Other information, including date of preparation or last revision

Issue Date: 2018/03/19

Revision Date: No data available.

Version #: 1.0

Source of information: No data available.

Further Information: No data available.

Disclaimer:

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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MAGNASOFT NFR-B

SAFETY DATA SHEET

1. Identification

Product identifier: MAGNASOFT NFR-B

Other means of identification

Synonyms: Silicone Emulsion

Recommended use and restriction on use

Recommended use: Water repellent Manufacture of textiles

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information : Momentive Amer Ind.
260 Hudson River Road
Waterford NY 12188

Contact person : commercial.services@momentive.com

Telephone : General information
+1-800-295-2392

Emergency telephone number

Supplier : CHEMTRAC
1-800-424-9300

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: Not applicable

Precautionary Statements Not applicable

Other hazards which do not result in GHS classification: None.

MAGNASOFT NFR-B

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%) [*]	Notes
Cationic Surfactant	Trade secret	1 - <5%	No data available.

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: ** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Ingestion: Do NOT induce vomiting. Do not give victim anything to drink if he is unconscious. Get medical attention.

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Skin Contact: Wash area with soap and water.

Eye contact: Immediately flush with plenty of water or eyewash solution for up to 10 minutes. Get medical attention if symptoms persist.

Most important symptoms/effects, acute and delayed

Symptoms: There is no specific antidote.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Treatment is symptomatic and supportive.

5. Fire-fighting measures

General Fire Hazards: No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical: fumes of isocyanates Hydrocyanic Acid Hydrogen chloride. Carbon Monoxide. Carbon dioxide

Special protective equipment and precautions for firefighters

MAGNASOFT NFR-B

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Avoid contact with eyes. Keep out of reach of children. Do not freeze. Stir well before using. Attention: Not for injection into humans.

Methods and material for containment and cleaning up: 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.

Environmental Precautions: Do not allow runoff to sewer, waterway or ground.

7. Handling and storage

Precautions for safe handling: Sensitivity to static discharge is not expected.

Conditions for safe storage, including any incompatibilities: Store at room temperature in the original container. Keep container closed.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.
None of the components have assigned exposure limits.

Appropriate Engineering Controls Eyewash bottle with clean water. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information: No data available.

Eye/face protection: Safety glasses with side-shields conforming to EN166

Skin Protection
Hand Protection: Nitrile rubber. Protective gloves made of :

Other: Wear suitable protective clothing and eye/face protection.

MAGNASOFT NFR-B

Respiratory Protection: Breathing apparatus needed only when aerosol or mist is formed. Use respiratory equipment with particle filter, type P2.

Hygiene measures: No data available.

9. Physical and chemical properties

Appearance

Physical state: liquid
Form: liquid
Color: Light brown
Odor: Ketones
Odor threshold: No data available.
pH: 4 (20 °C)
Melting point/freezing point: < 0 °C
Initial boiling point and boiling range: 100 °C
Flash Point: **> 96 °C**

Evaporation rate: No data available.
Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):
Flammability limit - lower (%):
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.
Heat of combustion: No data available.

Vapor pressure: 23 hPa (20 °C)

Vapor density: No data available.
Density: 1.03 g/cm3 (20 °C)
Relative density: No data available.

Solubility(ies)
Solubility in water: miscible
Solubility (other): No data available.
Partition coefficient (n-octanol/water) Log Pow: No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: > 120 °C
SADT: No data available.
Viscosity, dynamic: No data available.
Viscosity, kinematic: No data available.

Other information

Minimum ignition temperature: > 200 °C
SDS_US

MAGNASOFT NFR-B

VOC: No data available.

10. Stability and reactivity

Reactivity: No dangerous reaction if used as recommended.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: Do not freeze.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Methylethylketoxime (2-butanone oxime)

11. Toxicological information

General information: Aerosols of this product have a high inhalation toxicity potential. Therefore, when spraying this product and mixtures thereof with other components, exposure must be completely avoided. The use of respiratory equipment is mandatory for all spray applications. Long term inhalation studies (>28 days) with 2-butanone-oxime (decomposition product, see chapter 10) on male rats and mice showed: At concentrations of 10 ppm and higher the mucous membrane of the nose was affected in rats and mice. This effect is concerned with the irritating potential of 2-butanone-oxime. After life long exposure to the maximum concentration of 375 ppm liver carcinomas were observed in male rats and mice. In male rats exposed to concentrations of 75 ppm benign liver tumors were observed. The lowest test concentration of 15 ppm caused no liver tumors. The cured silicone resin coating is physiologically harmless, provided that the recommended manufacturing process has been followed.

Information on likely routes of exposure

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Ingestion: No data available.

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

MAGNASOFT NFR-B

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: LD 50 (Rat): 7,000 mg/kg

Dermal
Product: Not classified for acute toxicity based on available data.

Inhalation
Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: Slightly irritating.

Serious Eye Damage/Eye Irritation
Product: Slightly irritating.

Respiratory or Skin Sensitization
Product: Non sensitizing. Non sensitizing.

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

MAGNASOFT NFR-B

Germ Cell Mutagenicity

In vitro Product: No data available.

In vivo Product: No data available.

Reproductive toxicity Product: No data available.

Specific Target Organ Toxicity - Single Exposure Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure Product: No data available.

Aspiration Hazard Product: No data available.

Other effects: Experience has shown, that the above mentioned product can be used without any danger to health, as long as the usual conditions of industrial hygiene are observed. No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish Product: LC50 (Zebra Fish, 96 h): 58 mg/l
NOEC (Zebra Fish, 96 h): 32 mg/l

Aquatic Invertebrates Product: No data available.

Chronic hazards to the aquatic environment:

Fish Product: No data available.

Aquatic Invertebrates Product: No data available.

Toxicity to Aquatic Plants

MAGNASOFT NFR-B

Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments
Cationic Surfactant No data available.

Known or predicted distribution to environmental compartments
Cationic Surfactant No data available.

Other adverse effects: No data available.

13. Disposal considerations

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

Contaminated Packaging: Dispose of as unused product.

14. Transport information

DOT
Not regulated.

IMDG
Not regulated.

IATA
Not regulated.

MAGNASOFT NFR-B

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.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Not classified

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Cationic Surfactant	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Water

pre-polymer

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Cationic Surfactant

Trade secret

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

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Inventory Status:

Australia AICS:	n (Negative listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	n (Negative listing)	Remarks: None.
China Inventory of Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	n (Negative listing)	Remarks: None.
Canada DSL Inventory List:	n (Negative listing)	Remarks: None.
Canada NDSL Inventory:	n (Negative listing)	Remarks: None.
Philippines PICCS:	n (Negative listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: None.
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.	Remarks: None.
REACH:	If purchased from Momentive Performance Materials GmbH in Leverkusen, Germany, all substances in this product have been registered by Momentive Performance Materials GmbH or upstream in our supply chain or are exempt from registration under Regulation (EC) No 1907/2006 (REACH). For polymers, this includes the constituent monomers and other reactants.	Remarks: None.

16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	0
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date: 08/30/2018

Revision Date: No data available.

Version #: 2.0

Further Information: No data available.

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Disclaimer:

Notice to reader

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use 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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