SAFETY DATA SHEET

DOW CORNING(R) 790 SILICONE BUILDING SEALANT GRAY

Version	Revision Date:	SDS Number:	Date of last issue: 07/07/2015
2.0	10/20/2015	826526-00005	Date of first issue: 11/25/2014

SECTION 1. IDENTIFICATION

Product name : DOW CORNING(R) 790 SILICONE BUILDING SEALANT GRAY

Product code : 000000000004110831

Manufacturer or supplier's details

Company name of supplier : Dow Corning Corporation

Address : South Saginaw Road
Midland Michigan 48686

Telephone : (989) 496-6000

Emergency telephone : 24 Hour Emergency Telephone : (989) 496-5900
CHEMTREC : (800) 424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Adhesive, binding agents

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Eye irritation : Category 2A

Reproductive toxicity : Category 2

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water

for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Silicone elastomer

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Limestone	1317-65-3	>= 50 - < 70
Methylvinyl bis(N-ethylacetamido)silane	87855-59-2	>= 1 - < 5
Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine	68952-53-4	>= 1 - < 5
Magnesium carbonate	546-93-0	>= 1 - < 5
Quartz	14808-60-7	>= 0.1 - < 1
N-ethylacetamide	625-50-3	>= 0.1 - < 1
Octamethylcyclotetrasiloxane	556-67-2	>= 0.1 - < 1
Impurities in methylvinylbis(N-ethylacetamido)silane	Not Assigned	>= 0.1 - < 1
Titanium dioxide	13463-67-7	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Causes serious eye irritation. Suspected of damaging fertility or the unborn child.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.
Notes to physician	:	Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Metal oxides Silicon oxides Formaldehyde Nitrogen oxides (NOx)
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions	:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use only with adequate ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	:	Keep in properly labeled containers. Store in accordance with the particular national regulations.
Materials to avoid	:	Do not store with the following product types: Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

Limestone	1317-65-3	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
Magnesium carbonate	546-93-0	TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
Quartz	14808-60-7	TWA (total dust)	30 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	DCC OEL
Titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA	10 mg/m3 (Titanium dioxide)	ACGIH

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Methylvinyl bis(N-ethylacetamido)silane	87855-59-2
Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine	68952-53-4
N-ethylacetamide	625-50-3
Impurities in methylvinylbis(N-ethylacetamido)silane	Not Assigned

Engineering measures : Processing may form hazardous compounds (see section 10).
Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are

unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
Material : Impervious gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:
Safety goggles

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	paste
Color	:	gray
Odor	:	Fishy
Odor Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	No data available

Initial boiling point and boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	Not applicable
Relative vapor density	:	No data available
Relative density	:	1.48
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid	:	None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products
Thermal decomposition : Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Ingredients:

Limestone:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Methylvinyl bis(N-ethylacetamido)silane:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg
Method: Expert judgment

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on test data

Magnesium carbonate:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 420
Assessment: The substance or mixture has no acute oral toxicity

Quartz:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

N-ethylacetamide:

Acute oral toxicity : LD50 (Rat): 3,950 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC0 (Rat): 2.19 mg/l
Exposure time: 8 h
Test atmosphere: vapor
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Acute oral toxicity	:	LD50 (Rat): > 4,800 mg/kg Assessment: The substance or mixture has no acute oral toxicity Remarks: Based on test data
Acute inhalation toxicity	:	LC50 (Rat): 2975 ppm Exposure time: 4 h Test atmosphere: vapor Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Based on test data
Acute dermal toxicity	:	LD50 (Rabbit): > 2.5 ml/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on test data

Impurities in methylvinylbis(N-ethylacetamido)silane:

Acute oral toxicity	:	Acute toxicity estimate: 500 mg/kg Method: Expert judgment
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on data from similar materials

Titanium dioxide:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 6.82 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity

Skin corrosion/irritation

Not classified based on available information.

Ingredients:

Methylvinyl bis(N-ethylacetamido)silane:

Species: Rabbit
Result: No skin irritation
Remarks: Based on test data

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine:

Result: Skin irritation
Remarks: Based on data from similar materials

Magnesium carbonate:

Method: EPISKIN Human Skin Model Test
Result: No skin irritation

N-ethylacetamide:
Species: Rabbit
Result: No skin irritation
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Species: Rabbit
Result: No skin irritation
Remarks: Based on test data

Impurities in methylvinylbis(N-ethylacetamido)silane:
Species: Rabbit
Result: No skin irritation
Remarks: Based on data from similar materials

Titanium dioxide:
Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Ingredients:

Methylvinyl bis(N-ethylacetamido)silane:
Species: Rabbit
Result: Irreversible effects on the eye
Remarks: Based on test data

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine:
Result: Irritation to eyes, reversing within 21 days
Remarks: Based on data from similar materials

Magnesium carbonate:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

N-ethylacetamide:
Species: Rabbit
Result: No eye irritation
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Species: Rabbit
Result: No eye irritation
Remarks: Based on test data

Impurities in methylvinylbis(N-ethylacetamido)silane:
Species: Rabbit
Result: Irreversible effects on the eye
Remarks: Based on data from similar materials

Titanium dioxide:
Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Ingredients:

Methylvinyl bis(N-ethylacetamido)silane:
Assessment: Does not cause skin sensitization.

Test Type: Buehler Test
Species: Guinea pig
Remarks: Based on test data

N-ethylacetamide:
Test Type: Intracutaneous test
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Assessment: Does not cause skin sensitization.

Test Type: Maximization Test
Species: Guinea pig
Remarks: Based on test data

Impurities in methylvinylbis(N-ethylacetamido)silane:
Assessment: Does not cause skin sensitization.

Test Type: Buehler Test
Species: Guinea pig
Remarks: No known sensitising effect.
Based on data from similar materials

Titanium dioxide:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:

Methylvinyl bis(N-ethylacetamido)silane:

Genotoxicity in vitro	:	Test Type: Chromosome aberration test in vitro Result: negative Remarks: Based on test data

: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on test data

Magnesium carbonate:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

N-ethylacetamide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on test data

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on test data

: Test Type: Mutagenicity (in vitro mammalian cytogenetic test)
Result: negative
Remarks: Based on test data

: Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on test data

: Test Type: In vitro sister chromatid exchange assay in mammalian cells
Result: negative
Remarks: Based on test data

: Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative
Remarks: Based on test data

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: inhalation (vapor)
Result: negative
Remarks: Based on test data

Test Type: Rodent dominant lethal test (germ cell) (in vivo)

Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on test data

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

Impurities in methylvinylbis(N-ethylacetamido)silane:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Titanium dioxide:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:

Magnesium carbonate:

Species: Mouse
Application Route: Ingestion
Exposure time: 18 Months
Result: negative
Remarks: Based on data from similar materials

Quartz:

Species: Humans
Application Route: inhalation (dust/mist/fume)
Result: positive
Remarks: IARC (International Agency for Research on Cancer)
The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Carcinogenicity - Assessment : Positive evidence from human epidemiological studies (inhalation)

N-ethylacetamide:

Species: Mouse
Application Route: inhalation (vapor)
Exposure time: 18 Months
Result: negative
Remarks: Based on data from similar materials

Titanium dioxide:
Species: Rat
Application Route: inhalation (dust/mist/fume)
Exposure time: 24 Months
Method: OECD Test Guideline 453
Result: positive
Remarks: The mechanism or mode of action may not be relevant in humans.
The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Carcinogenicity - Assessment	:	Limited evidence of carcinogenicity in inhalation studies with animals.

IARC	Group 1: Carcinogenic to humans	
	Quartz	14808-60-7
	Group 2B: Possibly carcinogenic to humans	
	Titanium dioxide	13463-67-7
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.	
NTP	Known to be human carcinogen	
	Quartz	14808-60-7

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Ingredients:

Methylvinyl bis(N-ethylacetamido)silane:

Effects on fertility	:	Species: Rat, male Application Route: Ingestion Symptoms: Effects on fertility. Remarks: Based on test data
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Magnesium carbonate:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative Remarks: Based on data from similar materials
Effects on fetal development	:	Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

N-ethylacetamide:

Effects on fetal development	:	Test Type: Embryo-fetal development Species: Mouse Application Route: Ingestion Result: positive Remarks: Based on data from similar materials
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on development, based on animal experiments.

Octamethylcyclotetrasiloxane:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat, male and female Application Route: inhalation (vapor) Symptoms: Effects on fertility. Remarks: Based on test data
Effects on fetal development	:	Test Type: Prenatal development toxicity study (teratogenicity) Species: Rabbit Application Route: inhalation (vapor) Symptoms: No effects on fetal development. Remarks: Based on test data
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Impurities in methylvinylbis(N-ethylacetamido)silane:

Effects on fertility	:	Species: Rat, male Application Route: Ingestion Symptoms: Effects on fertility. Remarks: Based on data from similar materials
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Ingredients:

Quartz:

Routes of exposure: inhalation (dust/mist/fume)
Target Organs: Lungs
Assessment: Shown to produce significant health effects in animals at concentrations of 0.02

mg/l/6h/d or less.

Octamethylcyclotetrasiloxane:
Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Routes of exposure: inhalation (vapor)
Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

Routes of exposure: Skin contact
Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.

Repeated dose toxicity

Ingredients:

Magnesium carbonate:
Species: Rat
NOAEL: 124 - 127 mg/kg
Application Route: Ingestion
Exposure time: 90 Days

Quartz:
Species: Humans
LOAEL: 0.053 mg/m3
Application Route: Inhalation
Remarks: OECD SIDS
The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

N-ethylacetamide:
Species: Rabbit
NOAEL: 0.09 mg/l
LOAEL: 0.36 mg/l
Application Route: inhalation (vapor)
Exposure time: 24 Months
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Species: Rat
Application Route: Ingestion
Remarks: Based on test data

Species: Rat
Application Route: inhalation (vapor)
Remarks: Based on test data

Species: Rabbit
Application Route: Skin contact
Remarks: Based on test data

Titanium dioxide:

Species: Rat
NOAEL: 24,000 mg/kg
Application Route: Ingestion
Exposure time: 28 d

Species: Rat
NOAEL: 10 mg/m3
Application Route: inhalation (dust/mist/fume)
Exposure time: 2 y
Remarks: The substance is inextricably bound in the product and therefore does not contribute to a dust inhalation hazard.

Aspiration toxicity

Not classified based on available information.

Further information

Ingredients:

Octamethylcyclotetrasiloxane:

Remarks: Results from a 2 year repeated vapor inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

Limestone:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 10,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): > 200 mg/l Exposure time: 72 h

Methylvinyl bis(N-ethylacetamido)silane:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 69 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine:

Ecotoxicology Assessment

Acute aquatic toxicity	:	No toxicity at the limit of solubility.

Magnesium carbonate:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 2,120 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 490 - 1,127 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to algae	:	ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
Toxicity to bacteria	:	EC50: > 900 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials

Quartz:

Ecotoxicology Assessment

Acute aquatic toxicity	:	No toxicity at the limit of solubility.
Chronic aquatic toxicity	:	No toxicity at the limit of solubility.

N-ethylacetamide:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 3,390 mg/l Exposure time: 96 h Method: DIN 38412 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 580 mg/l Exposure time: 48 h Method: DIN 38412 Remarks: Based on data from similar materials
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to bacteria	:	EC10 (Pseudomonas putida): > 10,000 mg/l Exposure time: 17 h Method: DIN 38 412 Part 8 Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.022 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia sp.): > 0.015 mg/l Exposure time: 48 h Remarks: No toxicity at the limit of solubility.
Toxicity to algae	:	EC50: > 0.022 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility. NOEC: 0.022 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility.
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): >= 0.0044 mg/l Remarks: No toxicity at the limit of solubility.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 0.0079 mg/l Exposure time: 21 d Remarks: No toxicity at the limit of solubility.
Toxicity to bacteria	:	IC50: > 10,000 mg/l Method: ISO 8192

Ecotoxicology Assessment

Chronic aquatic toxicity	:	May cause long lasting harmful effects to aquatic life.

Titanium dioxide:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l Exposure time: 72 h
Toxicity to bacteria	:	EC50: > 1,000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

Persistence and degradability

Ingredients:

Methylvinyl bis(N-ethylacetamido)silane:

Biodegradability	:	Result: Not readily biodegradable. Biodegradation: 62.66 % Method: OECD Test Guideline 301B

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine:

Biodegradability	:	Result: Not readily biodegradable. Remarks: Based on data from similar materials

N-ethylacetamide:

Biodegradability	:	Result: Inherently biodegradable. Biodegradation: 100 % Exposure time: 6 d Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Biodegradability	:	Result: Not readily biodegradable. Biodegradation: 3.7 % Exposure time: 28 d Method: OECD Test Guideline 310
Stability in water	:	Degradation half life: 69.3 - 144 h (24.6 °C) pH: 7 Method: OECD Test Guideline 111

Bioaccumulative potential

Ingredients:

Octamethylcyclotetrasiloxane:

Partition coefficient: n-octanol/water	:	log Pow: 6.48 (25.1 °C)

Mobility in soil

No data available

Other adverse effects

Ingredients:

Octamethylcyclotetrasiloxane:

Results of PBT and vPvB assessment	:	Remarks: Octamethylcyclotetrasiloxane (D4) meets the current REACh Annex XIII criteria for PBT and vPvB. In Canada, D4 has been assessed and deemed to meet the PiT criteria. However, D4 does not behave similarly to known PBT/vPvB substances. 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

Resource Conservation and Recovery Act (RCRA)	:	This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.

Waste from residues	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Diethylamine	109-89-7	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Acute Health Hazard Chronic Health Hazard
SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

Limestone	1317-65-3	50 - 70 %
Dimethyl siloxane, hydroxy-terminated	70131-67-8	30 - 50 %
Aluminum oxide	1344-28-1	0.1 - 1 %
Aluminium	7429-90-5	0 - 0.1 %

New Jersey Right To Know

Limestone	1317-65-3	50 - 70 %
Dimethyl siloxane, hydroxy-terminated	70131-67-8	30 - 50 %
Methylvinyl bis(N-ethylacetamido)silane	87855-59-2	1 - 5 %
Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine	68952-53-4	1 - 5 %
Magnesium carbonate	546-93-0	1 - 5 %
Quartz	14808-60-7	0.1 - 1 %

California Prop. 65 WARNING! This product contains a chemical known in the State of California to cause cancer.

Cobalt titanite green spinel	68186-85-6

The ingredients of this product are reported in the following inventories:

TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

AICS : All ingredients listed or exempt.

REACH : Consult your local Dow Corning office.

IECSC : One or more components of this product may not be listed on the IECSC inventory, but this component(s) is (are) registered with volume limitation under Dow Corning entity in China. Consult your local Dow Corning office.

DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

NZIoC : All ingredients listed or exempt.

Additional regulatory information

Methylvinyl bis(N-ethylacetamido)silane	87855-59-2

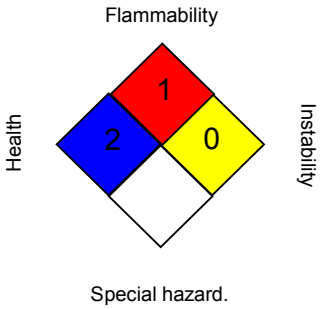
This product contains a substance regulated by Significant New Activity (SNAc) Notice No. 17116 under CEPA 1999 81(4). A significant new activity is the use of the substance in Canada in a

quantity greater than 1,000 kilograms per calendar year in consumer products as defined in section 2 of the Canada Consumer Products Safety Act when it is an unreacted form.

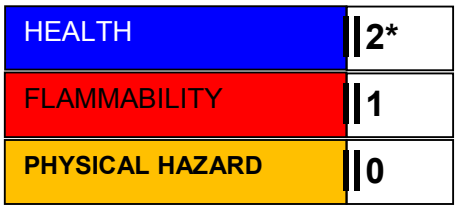
SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:



0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
DCC OEL	:	Dow Corning Guide
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3	:	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	:	8-hour, time-weighted average
DCC OEL / TWA	:	Time weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA Z-1 / TWA	:	8-hour time weighted average
OSHA Z-3 / TWA	:	8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - Interna-

tional Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/
Revision Date	:	10/20/2015

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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