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#### **SECTION 1. IDENTIFICATION**

Product name : DOW CORNING(R) 3145 RTV MIL-A-46146

ADHESIVE/SEALANT-GRAY

Product code : 0000000001059548

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

Electrical industry and electronics

### **SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification** 

Reproductive toxicity : Category 2

**GHS Label element** 

Hazard pictograms :

Signal Word : Warning

Hazard Statements : 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.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/

attention. Storage:

P405 Store locked up.



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Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal 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)
Hexamethyldisilazane reaction with Silica	68909-20-6	>= 20 - < 30
Methyltrimethoxysilane	1185-55-3	>= 5 - < 10
Titanium dioxide	13463-67-7	>= 1 - < 5
Octamethylcyclotetrasiloxane	556-67-2	>= 0.1 - < 1
Methanol	67-56-1	>= 0.1 - < 1

### **SECTION 4. FIRST AID MEASURES**

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice 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 : Flush eyes with water as a precaution.

Get medical attention if irritation develops and persists.

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

: 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



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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 prod-

ucts

: Carbon oxides Silicon oxides Formaldehyde

Nitrogen oxides (NOx)

Metal oxides

Specific extinguishing meth-

ods

: Use extinguishing measures that are appropriate to local cir-

cumstances 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 emer-

gency procedures

: Use personal protective equipment.

Follow safe handling advice and personal protective equip-

ment 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 absor-

bent.



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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 deter-

mine 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.

Avoid contact with eyes.

Handle in accordance with good industrial hygiene and safety

practice.

Keep away from water. Protect from moisture.

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
Hexamethyldisilazane reaction with Silica	68909-20-6	TWA (Dust)	20 Million partic- les per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
Methyltrimethoxysilane	1185-55-3	TWA	50 ppm	DCC OEL
Titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA	10 mg/m3 (Titanium dioxide)	ACGIH
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	DCC OEL
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH



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TWA	200 ppm 260 mg/m3	NIOSH REL
ST	250 ppm 325 mg/m3	NIOSH REL
TWA	200 ppm 260 mg/m3	OSHA Z-1

# Occupational exposure limits of decomposition products

Ingredients	CAS-No.	Value type (Form of	Control parameters / Permissible	Basis
NA - Al I	07.50.4	exposure)	concentration	A 0 0 11 1
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm	NIOSH REL
			260 mg/m3	
		ST	250 ppm	NIOSH REL
			325 mg/m3	
		TWA	200 ppm 260 mg/m3	OSHA Z-1

# **Biological occupational exposure limits**

Ingredients	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI

**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



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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 glasses

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 re-

quire added precautions.

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : paste

Color : gray

Odor : slight

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



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Lower explosion limit : No data available

Vapor pressure : Not applicable

Relative vapor density : No data available

Relative density : 1.12

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 reac-

tions

: Use at elevated temperatures may form highly hazardous

compounds.

Can react with strong oxidizing agents.

When heated to temperatures above 180 °C (356 °F) in the presence of air, trace quantities of formaldehyde may be re-

leased.

Adequate ventilation is required.

See OSHA formaldehyde standard, 29 CFR 1910.1048 Hazardous decomposition products will be formed upon con-

tact with water or humid air.

Hazardous decomposition products will be formed at elevated

temperatures.

Conditions to avoid : Exposure to moisture.

Incompatible materials : Oxidizing agents

Water

Hazardous decomposition products



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Contact with water or hu-

mid air

: Methanol

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

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l

Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

# **Ingredients:**

Hexamethyldisilazane reaction with Silica:

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

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: Based on data from similar materials

Methyltrimethoxysilane:

Acute oral toxicity : LD50 (Rat): 12.3 ml/kg

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: Information taken from reference works and the

literature.

Acute inhalation toxicity : LC50 (Rat): > 42.1 mg/l

Exposure time: 6 h
Test atmosphere: vapor

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on test data

Acute dermal toxicity : LD50 (Rabbit): > 9,500 mg/kg

Assessment: The substance or mixture has no acute dermal



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toxicity

Remarks: Based on test data

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 inhala-

tion toxicity

Octamethylcyclotetrasiloxane:

Acute oral toxicity : LD50 (Rat): > 4,800 mg/kg

Assessment: The substance or mixture has no acute oral tox-

icitv

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 inhala-

tion 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

Methanol:

Acute oral toxicity : Acute toxicity estimate (Humans): 300 mg/kg

Method: Expert judgment

Acute inhalation toxicity : Acute toxicity estimate: 3 mg/l

Exposure time: 4 h
Test atmosphere: vapor
Method: Expert judgment

Remarks: Based on harmonised classification in EU regulation

1272/2008, Annex VI

Acute dermal toxicity : Acute toxicity estimate (Humans): 300 mg/kg

Method: Expert judgment

Skin corrosion/irritation

Not classified based on available information.

**Product:** 

Species: Rabbit

Result: Mild skin irritation

Remarks: Based on data from similar materials

Ingredients:



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## Hexamethyldisilazane reaction with Silica:

Assessment: Repeated exposure may cause skin dryness or cracking.

# Methyltrimethoxysilane:

Species: Rabbit

Result: No skin irritation Remarks: Based on test data

#### Titanium dioxide:

Species: Rabbit

Result: No skin irritation

### Octamethylcyclotetrasiloxane:

Species: Rabbit

Result: No skin irritation Remarks: Based on test data

#### Methanol:

Species: Rabbit

Result: No skin irritation

### Serious eye damage/eye irritation

Not classified based on available information.

## **Product:**

Species: Rabbit

Result: No eye irritation

Remarks: Based on data from similar materials

### Ingredients:

### Hexamethyldisilazane reaction with Silica:

Species: Rabbit

Result: No eye irritation

Remarks: Based on data from similar materials

# Methyltrimethoxysilane:

Species: Rabbit

Result: No eye irritation

Remarks: Based on test data

### Titanium dioxide:

Species: Rabbit

Result: No eye irritation

## Octamethylcyclotetrasiloxane:

Species: Rabbit

Result: No eye irritation Remarks: Based on test data

# Methanol:

Species: Rabbit

Result: No eye irritation



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### Respiratory or skin sensitization

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

**Product:** 

Assessment: Does not cause skin sensitization.

Test Type: Buehler Test Species: Guinea pig

Remarks: Based on data from similar materials

# **Ingredients:**

# Methyltrimethoxysilane:

Assessment: Probability or evidence of low to moderate skin sensitization rate in humans

Test Type: Buehler Test Species: Guinea pig

Remarks: Based on test data

### Titanium dioxide:

Test Type: Local lymph node assay (LLNA)

Routes of exposure: Skin contact

Species: Mouse Result: negative

## Octamethylcyclotetrasiloxane:

Assessment: Does not cause skin sensitization.

Test Type: Maximization Test

Species: Guinea pig

Remarks: Based on test data

### Methanol:

Test Type: Maximization Test Routes of exposure: Skin contact

Species: Guinea pig Result: negative

# Germ cell mutagenicity

Not classified based on available information.

**Product:** 

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

Result: negative

Remarks: Based on data from similar materials

## **Ingredients:**

### Hexamethyldisilazane reaction with Silica:

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

Result: negative



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Remarks: Based on data from similar materials

Methyltrimethoxysilane:

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: positive

Remarks: Based on test data

: Test Type: Chromosome aberration test in vitro

Result: positive

Remarks: Based on test data

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Ingestion

Result: negative

Remarks: Based on test data

Germ cell mutagenicity -

Assessment

: Animal testing did not show any mutagenic effects.

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

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 mam-

malian cells Result: negative

Remarks: Based on test data

: Test Type: DNA damage and repair, unscheduled DNA syn-

thesis in mammalian cells (in vitro)

Result: negative



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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.

Methanol:

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

Method: OECD Test Guideline 471

Result: negative

: Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Intraperitoneal injection

Result: negative

#### Carcinogenicity

Not classified based on available information.

# **Ingredients:**

#### 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 - Assess-

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

ment

# Methanol:

Species: Mouse

Application Route: inhalation (vapor)



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Exposure time: 18 Months

Method: OECD Test Guideline 453

Result: negative

IARC 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 carcino-

gen by OSHA.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

### Reproductive toxicity

Suspected of damaging fertility or the unborn child.

### Ingredients:

Methyltrimethoxysilane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat, male and female Application Route: Ingestion Symptoms: No effects on fertility. Remarks: Based on test data

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the

reproduction/developmental toxicity screening test

Species: Rat, male and female Application Route: Ingestion

Symptoms: No effects on fetal development.

Remarks: Based on test data

Reproductive toxicity - As-

sessment

: No evidence of adverse effects on sexual function and fertility,

or 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 - As-

sessment

: Some evidence of adverse effects on sexual function and

fertility, based on animal experiments.



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Methanol:

Effects on fertility : Test Type: Fertility/early embryonic development

Species: Mouse

Application Route: Ingestion

Result: negative

Effects on fetal development : Test Type: Embryo-fetal development

Species: Mouse

Application Route: Ingestion Method: OECD Test Guideline 414

Result: positive

Remarks: The effects were seen only at maternally toxic dos-

es.

## STOT-single exposure

Not classified based on available information.

#### **Ingredients:**

### Methanol:

Target Organs: Eyes, Central nervous system Assessment: Causes damage to organs.

### STOT-repeated exposure

Not classified based on available information.

### **Ingredients:**

# Methyltrimethoxysilane:

Routes of exposure: inhalation (vapor)

Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

iess.

Routes of exposure: Ingestion

Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg

bw 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:**



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## Methyltrimethoxysilane:

Species: Rat

Application Route: inhalation (vapor)

Remarks: Based on test data

Species: Rat

Application Route: Ingestion 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.

## 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

#### Methanol:

Species: Rat NOAEL: 1.06 mg/l

Application Route: inhalation (vapor)

Exposure time: 90 Days

### **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 octamethyl-cyclotetrasiloxane (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



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the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

#### **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

## Ingredients:

Methyltrimethoxysilane:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia sp.): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to bacteria : EC50: > 100 mg/l

Method: OECD Test Guideline 209

Titanium dioxide:

: LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Toxicity to fish

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

: EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l Toxicity to algae

Exposure time: 72 h

: EC50: > 1,000 mg/l Toxicity to bacteria

Exposure time: 3 h

Method: OECD Test Guideline 209

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.

aquatic invertebrates

Toxicity to daphnia and other : 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 ma/l

Exposure time: 96 h

Remarks: No toxicity at the limit of solubility.



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NOEC: 0.022 mg/l Exposure time: 96 h

Remarks: No toxicity at the limit of solubility.

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): >= 0.0044 mg/l

Remarks: No toxicity at the limit of solubility.

Toxicity to daphnia and other aguatic invertebrates (Chron-

ic 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.

Methanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 22,000

mg/l

Exposure time: 96 h Method: OPPTS 850.5400

Toxicity to fish (Chronic tox-

icity)

: NOEC (Oryzias latipes (Orange-red killifish)): 15,800 mg/l

Exposure time: 200 h

Toxicity to bacteria : EC50: 20,000 mg/l

Exposure time: 15 h

# Persistence and degradability

**Ingredients:** 

Methyltrimethoxysilane:

Stability in water : Degradation half life: 2.2 h pH: 7

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

Methanol:

Biodegradability : Result: Readily biodegradable.



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Biodegradation: 95 % Exposure time: 20 d

### Bioaccumulative potential

## **Ingredients:**

## Methyltrimethoxysilane:

Partition coefficient: n- : log Pow: -2.36

octanol/water

## Octamethylcyclotetrasiloxane:

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

octanol/water

#### Methanol:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)

Bioconcentration factor (BCF): < 10

Partition coefficient: n-

octanol/water

: log Pow: -0.77

### 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 han-

dling site for recycling or disposal.



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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	Calculated product RQ
		(lbs)	(lbs)
Methanol	67-56-1	5000	*

<sup>\*:</sup> 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 : Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting re-

quirements 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

Dimethyl siloxane, hydroxy-terminated 70131-67-8 50 - 70 % Hexamethyldisilazane reaction with Silica 68909-20-6 20 - 30 %



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	Titanium o	ethoxysilane lioxide	1185-55-3 13463-67-7	5 - 10 % 1 - 5 %	
New	Methanol Jersey Right To Kno	ow.	67-56-1	0.1 - 1 %	
	Dimethyl s	siloxane, hydroxy-terminat yldisilazane reaction with		50 - 70 % 20 - 30 %	
Methyltrimethoxysilane Titanium dioxide		1185-55-3 13463-67-7	5 - 10 % 1 - 5 %		
Methanol		67-56-1	0.1 - 1 %		

California Prop. 65 WARNING: This product contains a chemical known in the

State of California to cause birth defects or other reproductive

harm.

Methanol 67-56-1

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

NZIoC : All ingredients listed or exempt.

REACH : All ingredients (pre-)registered or exempt.

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.

IECSC : All ingredients listed or exempt.

ENCS/ISHL : All components are listed on ENCS/ISHL or exempted from

inventory listing.

KECI : All ingredients listed, exempt or notified.

PICCS : All ingredients listed or exempt.

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).

TCSI : All ingredients listed or exempt.

# **DOW CORNING**

# DOW CORNING(R) 3145 RTV MIL-A-46146 ADHESIVE/SEALANT-GRAY

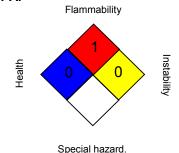
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#### **SECTION 16. OTHER INFORMATION**

#### **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)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)

DCC OEL : Dow Corning Guide

NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Min-

eral Dusts

ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
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

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded

at any time during a workday

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 - International

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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 Agen-

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cy, http://echa.europa.eu/

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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.

**US / Z8**