

## Safety Data Sheet

### **Section 1-Chemical Product and Company Identification**

#### **Company Information:**

**PremierRepak Inc.**  
8351 W. 185<sup>th</sup> Street  
Tinley Park, IL 60487

**Phone:** (708) 444-2688  
**Fax:** (708) 429-4280

**InfoTrac 24-hour Emergency Phone Number:** 1 (800) 535-5053

**InfoTrac Contract Number:** 105384

#### **Product Information:**

**Generic Description:** Silicone elastomer  
**Recommended use:** Adhesive, binding agents  
**Substance:** Mixture

### **Section 2-Hazard Identification**

#### **GHS Classification:**

**Skin Sensitization:** Category 1

**Specific target organ, systemic toxicity-repeated exposure (Oral):** Category 2 (Blood)

#### **GHS Label element:**



**Signal Word:** WARNING

#### **Hazard Statements:**

H317: **May cause allergic skin reaction.**

H319: **Causes serious eye irritation.**

H373: **May cause damage to organs (Blood) through prolonged exposure or repeated Exposure, if swallowed.**

#### **Precautionary Statements:**

##### **Prevention:**

P260: **Do not breathe dust/fume/gas/vapor/spray**

P264: **Wash skin thoroughly after handling.**

P272: **Contaminated work clothing must not be allowed out in workplace.**

P280: **Wear protective gloves.**

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**Responses:**

P302+P352: **IF ON SKIN: Wash with plenty of soap and water.**

P314: **Get medical advice/attention if you feel unwell.**

P305 + P351 + P338: **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

P333+P313: **If skin irritation or rash occurs. Get medical advice/attention.**

P337 + P313: **If eye irritation persists: Get medical advice/ attention**

P363: **Wash contaminated clothing before reuse.**

**Disposal:**

P501: **Dispose of contents/container to an approved waste disposal plant.**

**Other hazards:** None known.

**Section 3-Composition and Information on Ingredients****Hazardous Ingredients:**

<u>Common Name</u>	<u>C.A.S. No.</u>	<u>Wt. %</u>
Silicon dioxide	7631-86-9	>= 5 - < 10
Methyltri (ethylmethylketoxime) silane	22984-54-9	>= 1 - < 5
Vinyltri (ethylmethylketoxime) silane	2224-33-1	>= 0.1 - < 1
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	>= 0.1 - < 1
Titanium dioxide	13463-67-7	>= 0.1 - < 1
Methyltri(ethylmethylketoxime)silane isomers and oligomers	Not Assigned	>= 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:** Remove to fresh air. Get medical attention if symptoms occur.

**In case of skin contact:** Wash with water and soap as a precaution. Get medical attention if symptoms occur. Wash clothing 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 if symptoms occur. Rinse mouth thoroughly with water.

**Most important symptoms and effects, both acute and delayed:** May cause an allergic skin reaction.

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May cause damage to organs through prolonged or repeated exposure if swallowed.

**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- Firefighting Measures**

**Suitable extinguishing media:** Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media:** None known.

**Specific hazards during firefighting:** Exposure to combustion products may be a hazard to health.

**Hazardous combustion products:** Carbon oxides, Silicon oxides, Formaldehyde, Metal Oxides

**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:** Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

#### **Section 6 – Accidental Release Measures**

##### **Personal precautions, protective equipment and emergency procedures:**

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.

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#### **Section 7- Handling and Storage**

**Technical measures:** See Engineering measures under **Section 8 Exposure Controls and Personal Protection.**

**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 and Personal Protection**

##### **Hazardous Component with workplace control parameters:**

<b>Common Name</b>	<b>C.A.S. No.</b>	<b>Value type (Form of exposure)</b>	<b>Control parameters Permissible Conc.</b>	<b>Basis</b>
Silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot. (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub> (Silica)	OSHA Z-3
		TWA	6 mg/m <sup>3</sup> (Silica)	NIOSH REL
Titanium dioxide	13463-67-7	TWA (Total Dust)	15mg/m <sup>3</sup>	OSHA Z-3
		TWA	10mg/m <sup>3</sup> (Titanium dioxide)	ACGIH

##### **Hazardous Component without workplace control parameters:**

<b>Common Name</b>	<b>C.A.S. No.</b>
Methyltri (ethylmethylketoxime) silane	22984-54-9
Vinyltri (ethylmethylketoxime) silane	2224-33-1
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3
Methyltri(ethylmethylketoxime)silane	Not Assigned

##### **Occupational exposure limits of decomposition products:**

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<u>Common Name</u>	<u>C.A.S. No.</u>	<u>Value type (Form of exposure)</u>	<u>Control parameters Permissible Conc.</u>	<u>Basis</u>
Ethyl methyl ketoxime	96-29-7	TWA	10 ppm	SR
Further information: Skin sensitization				
		TWA	10 ppm	US WEEL

**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/Chemical Characteristics**

**Odor:** slight

**Appearance:** paste

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**Odor Threshold:** No data available  
**Specific Gravity @ 25°C:** 1.007  
**Freezing/Melting Point:** No data available.  
**Boiling Point:** Not applicable.  
**Vapor Pressure:** Not applicable.  
**Vapor Density:** No data available.  
**Solubility in Water:** No data available.  
**pH:** Not applicable.  
**Volatile Content:** Not determined.  
**Flash Point:** Not applicable  
**Auto ignition Temperature:** No data available.  
**Flammability (solid, gas):** Not classified as a flammability hazard  
**Evaporation rate:** Not applicable  
**Upper explosion limit:** No data available  
**Lower explosion limit:** No data available  
**Partition coefficient:** noctanol/water: No data available  
**Decomposition temperature:** No data available  
**Viscosity, dynamic:** Not applicable  
**Explosive properties:** Not explosive  
**Oxidizing properties:** The substance or mixture is not classified as oxidizing.  
**Molecular weight:** No data available  
**Relative Density:** 1.04

**Color:** White

#### **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. Acetic acid is formed upon contact with water or humid air. When heated to temperatures above 150 °C (300 °F) in the presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required. See OSHA formaldehyde standard, 29 CFR 1910.1048. Hazardous decomposition products will be formed at elevated temperatures.

**Conditions to avoid:** Exposure to moisture.

**Incompatible materials:** Oxidizing agents, Water

**Hazardous decomposition products:**

Contact with water or humid air: Ethyl methyl Ketoxime  
Thermal decomposition: Formaldehyde

#### **Section 11- Toxicological Information**

**Information on likely routes of exposure:**

Skin contact  
Ingestion  
Eye contact

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#### Acute toxicity:

Not classified based on available information.

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

#### **Ingredients:**

##### **Silicon dioxide:**

##### **Oral:**

**Acute toxicity:** LD50 (Rat): > 3,300 mg/kg

**Assessment:** The substance or mixture has no acute oral toxicity

**Remarks:** Information taken from reference works and the literature.

##### **Inhalation:**

**Acute toxicity:** LC50 (Rat): > 2.08 mg/l

**Exposure time:** 4 h

**Test atmosphere:** dust/mist

**Assessment:** The substance or mixture has no acute inhalation toxicity

**Remarks:** Information taken from reference works and the literature.

##### **Dermal:**

**Acute toxicity:** LD50 (Rabbit): > 5,000 mg/kg

**Assessment:** The substance or mixture has no acute dermal toxicity

**Remarks:** Information taken from reference works and the literature.

#### **Methyltri(ethylmethylketoxime)silane:**

##### **Oral:**

**Acute toxicity:** LD50 (Rat) > 2,520 mg/kg

**Assessment:** The substance or mixture has no acute oral toxicity

#### **Vinyltri (methylethylketoxime) silane:**

##### **Oral:**

**Acute toxicity:** LD50 (Rat) > 2,000 mg/kg

**Assessment:** The substance or mixture has no acute oral toxicity

**Remarks:** Based on test data

##### **Dermal:**

**Acute toxicity:** LD50 (Rat) > 2,000 mg/kg

**Assessment:** The substance or mixture has no acute dermal toxicity

**Remarks:** Based on test data

#### **N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

##### **Oral:**

**Acute toxicity:** LD50 (Rat) 2,295 mg/kg

**Remarks:** Based on test data

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**Inhalation:**

**Acute toxicity:** LC50 (Rat) > 1.49 mg/l

**Exposure time:** 4 h

**Test atmosphere:** dust/mist

**Remarks:** Based on test data

**Dermal:**

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

**Assessment:** The substance or mixture has no acute dermal toxicity

**Remarks:** Based on test data

**Titanium dioxide:**

**Oral:**

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

**Inhalation:**

**Acute 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:**

**Silicon dioxide:**

**Result:** No skin irritation

**Remarks:** Information taken from reference works and the literature.

**Methyltri(ethylmethylketoxime)silane:**

**Species:** Rabbit

**Result:** No skin irritation

**Remarks:** Based on data from similar materials

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

**Species:** Rabbit

**Result:** Mild skin irritation

**Remarks:** Based on test data

**Titanium dioxide:**

**Species:** Rabbit

**Result:** No skin irritation

**Serious eye damage/eye irritation:**

Causes serious eye irritation.



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#### Ingredients:

##### Silicon dioxide:

**Result:** No eye irritation

**Remarks:** Information taken from reference works and the literature.

##### Methyltri(ethylmethylketoxime)silane:

**Species:** Rabbit

**Result:** Irritation to eyes, reversing within 7 days

**Remarks:** Based on test data

##### Vinyltri (methylethylketoxime) silane:

**Species:** Rabbit

**Result:** Irreversible effects on the eye

**Remarks:** Based on test data

##### N-(3-(Trimethoxysilyl)propyl)ethylenediamine:

**Species:** Rabbit

**Result:** Irreversible effects on the eye

**Remarks:** Based on test data

##### Methyltri(ethylmethylketoxime)silane isomers and oligomers:

**Species:** Rabbit

**Result:** Irritation to eyes, reversing within 7 days

**Remarks:** Based on data from similar materials

##### Titanium dioxide:

**Species:** Rabbit

**Result:** No eye irritation

#### Respiratory or skin sensitization:

**Skin sensitization:** May cause an allergic skin reaction.

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

#### Ingredients:

##### Silicon dioxide:

**Assessment:** Does not cause skin sensitization.

**Test Type:** Skin: test type not specified

**Species:** Guinea pig

**Remarks:** No known sensitizing effect.

Information taken from reference works and the literature.

##### Methyltri(ethylmethylketoxime)silane:

**Assessment:** Probability or evidence of skin sensitization in humans

**Test Type:** Maximization Test (GPMT)

**Species:** Guinea pig

**Remarks:** Based on test data

##### Vinyltri (methylethylketoxime) silane:

**Assessment:** Probability or evidence of skin sensitization in humans

**Test Type:** Maximization Test (GPMT)

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**Species:** Guinea pig  
**Remarks:** Causes sensitization.  
Based on data from similar materials.

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

**Assessment:** Probability or evidence of skin sensitization in humans  
**Test Type:** Maximization Test (GPMT)  
**Species:** Guinea pig  
**Remarks:** Causes sensitization  
Information taken from reference works and the literature.

**Methyltri(ethylmethylketoxime)silane isomers and oligomers:**

**Assessment:** Probability or evidence of skin sensitization in humans  
**Test Type:** Maximization Test (GPMT)  
**Species:** Guinea pig  
**Remarks:** Causes sensitization.

**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:**

**Silicon dioxide:**

**Genotoxicity in vitro:**

Result: negative  
Remarks: Information taken from reference works and the literature.

**Genotoxicity in vivo:**

Application Route: Ingestion  
Result: negative  
Remarks: Information taken from reference works and the literature.

**Germ cell mutagenicity:**

Assessment: Animal testing did not show any mutagenic effects.

**Methyltri(ethylmethylketoxime)silane:**

**Genotoxicity in vitro:**

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

**Vinyltri (methylethylketoxime) silane:**

**Genotoxicity in vitro:**

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

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Remarks: Based on test data

**Genotoxicity in vivo:**

Test Type: In vivo micronucleus test  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative  
Remarks: Based on test data

**Germ cell mutagenicity Assessment:** Not classified based on available information

**Titanium dioxide:**

**Genotoxicity in vitro:**

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

**Genotoxicity in vivo:**

Test Type: In vivo micronucleus test  
Test species: Mouse  
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 Assessment:** Limited evidence of carcinogenicity in inhalation studies with animals.

**IARC:** Group 2B: Possibly carcinogenic to humans

<u>Common Name</u>	<u>C.A.S. No</u>
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:** 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:**

Not classified based on available information.

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**Ingredients:**

**Methyltri(ethylmethylketoxime)silane:**

**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

**Result:** 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

**Result:** No effects on fetal development

**Remarks:** Based on test data

**Reproductive Assessment:** No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

**Effects on fertility:**

**Test Type:** Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test

**Application Route:** Ingestion

**Result:** 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

**Application Route:** Ingestion

**Result:** No effects on fetal development

**Remarks:** Based on test data

**Reproductive Assessment:** No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments

**STOT-single exposure:**

Not classified based on available information.

**STOT-repeated exposure:**

May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.

**Ingredients:**

**Methyltri(ethylmethylketoxime)silane:**

Routes of exposure: Ingestion

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Target Organs: Blood

Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

**Vinyltri (methylethylketoxime) silane:**

Routes of exposure: Ingestion

Target Organs: Blood

Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

Routes of exposure: Ingestion

Assessment: Shown to produce significant health effects in animals at concentrations of 100 mg/kg bw or less

**Methyltri(ethylmethylketoxime)silane isomers and oligomers:.**

Routes of exposure: Ingestion

Target Organs: Blood

Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw

**Repeated dose toxicity:**

**Ingredients:**

**Methyltri(ethylmethylketoxime)silane:**

Species: Rat

Routes of exposure: Ingestion

Target Organs: Blood

Remarks: Based on test data

**Vinyltri (methylethylketoxime) silane:**

Species: Rat

Routes of exposure: Ingestion

Target Organs: Blood

Remarks: Based on data from similar materials

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

Routes of exposure: Ingestion

Remarks: Based on test data

**Methyltri(ethylmethylketoxime)silane isomers and oligomers:**

Species: Rat

Routes of exposure: Ingestion

Target Organs: Blood

Remarks: Based on data from similar materials

**Titanium dioxide:**

**Species:** Rat

**NOAEL:** 24,000 mg/kg

**Application Route:** Ingestion

**Exposure time:** 28 d

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**Species:** Rat

**NOAEL:** 10 mg/m<sup>3</sup>

**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:

##### **Product:**

Remarks: During use of the material, small amounts of methylethylketoxime (MEKO) will be released. Rodents exposed to chronic MEKO inhalation throughout their lifetimes showed significant increases in liver tumor rates.

#### **Section 12 – Ecological Information**

##### **Ecotoxicity:**

##### **Ingredients:**

##### **Methyltri(ethylmethylketoxime)silane:**

###### **Toxicity to fish:**

LC50 (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

###### **Toxicity to daphnia and other aquatic invertebrates:**

EC50 (Daphnia magna (Water flea)): > 120 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

###### **Toxicity to algae:**

ErC50: Selenastrum capricornutum (green algae): > 94 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

###### **Ecotoxicity Assessment:**

Acute Aquatic toxicity: This product has no known ecotoxicological effects.

##### **N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

###### **Toxicity to fish:**

LC50 (Danio rerio (zebra fish)) 597 mg/l

Exposure time: 96 h

Method: Directive 67/548/EEC, Annex V, C.1

###### **Toxicity to daphnia and other aquatic invertebrates:**

EC50 (Daphnia s.p.): > 81 mg/l

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Exposure time: 48 h  
Method: Directive 67/548/EEC, Annex V, C.2

#### **Toxicity to algae:**

ErC50: *Selenastrum capricornutum* (green algae): > 8.8 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC *Selenastrum capricornutum* (green algae): 3.1 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

#### **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):**

NOEC (*Daphnia* sp.): > 1 mg/l  
Exposure time: 21 d

#### **Toxicity to bacteria:**

EC50 (*Pseudomonas putida*): 67 mg/l  
Exposure time: 16 h  
Test Type: Growth inhibition  
Method: DIN 38 412 Part 8

#### **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:**

##### **Methyltri(ethylmethylketoxime)silane:**

###### **Biodegradability:**

Result: Not readily biodegradable.  
Biodegradation: 14.5 %  
Exposure time: 21 d  
Method: OECD Test Guideline 302B  
Remarks: Based on data from similar materials

##### **Vinyltri (methylethylketoxime) silane:**

###### **Biodegradability:**

Result: Not readily biodegradable

###### **Stability in water:**

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Degradation half life: 1 s

#### **N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

##### **Biodegradability:**

Result: Not readily biodegradable.

Biodegradation: 39 %

Method: OECD Test Guideline 301A

##### **Stability in water:**

Degradation half life: 0.025 h (24.7 °C) pH 7

Method: OECD Test Guideline 111

#### **Bioaccumulative potential:**

##### **Ingredients:**

#### **Methyltri(ethylmethylketoxime)silane:**

Partition coefficient n- octanol/water: log Pow 1.2

#### **N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

Partition coefficient n- octanol/water: log Pow -0.3

**Mobility in soil:** No data available

**Other adverse effects:** No data available

### **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:** Dispose of as unused product. Empty containers should be taken to an approved waste-handling site for recycling or disposal.

### **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



## Safety Data Sheet

**Section 15- Hazard Classification****EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity:**

<u>Component Name</u>	<u>CAS Number</u>	<u>Component RQ (lbs)</u>	<u>Calculated product RQ(lbs)</u>
n-Hexane	110-54-3	5000	*
Methanol	67-56-1	5000	*
Ethylenediamine	107-15-3	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity:**

<u>Component Name</u>	<u>CAS Number</u>	<u>Component RQ (lbs)</u>	<u>Calculated product RQ(lbs)</u>
Ethylenediamine	107-15-3	5000	*

**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:****California:**

Warning: This product does contain the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

<u>Component Name</u>	<u>CAS Number</u>
Methanol	67-56-1

**State Right-To-Know:**

<u>CAS Number</u>	<u>Wt %</u>	<u>Component Name</u>	<u>State</u>
70131-67-8	70-90	Dimethyl siloxane, hydroxy-terminated	New Jersey, Pennsylvania
7631-86-9	5-10	Silicon dioxide	New Jersey, Pennsylvania
22984-54-9	1-5	Methytri (ethylmethylketoxime) silane	New Jersey, Pennsylvania

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63148-62-9

1-5

Dimethyl siloxane,  
trimethylsiloxy-terminated

New Jersey

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

**AICS:** All ingredients listed or exempt.

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

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

#### Inventories:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

#### **Section 16 – Other Information**

##### Further information:

##### **NFPA:**

Flammability: 1  
Health: 2  
Instability: 0  
Special hazard: None

##### **HMIS III:**

Flammability: 1  
Health: 2\*  
Physical Hazard: 0

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

##### Full text of other abbreviations:

**SR:** Supplier Reference

**NIOSH REL:** USA. NIOSH Recommended Exposure Limits.

**OSHA Z-3:** USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts

**SR / 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-3 / TWA:** 8-hour time weighted average

**US WEEL / TWA:** 8-hour time weighted average

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**US WEEL:** USA. Workplace Environmental Exposure Levels (WEEL)

**OSHA Z-1:** USA. Occupational Exposure Limits (OSHA) –  
Table Z-1 Limits for Air Contaminants

**ACGIH / TWA:** 8-hour, time-weighted average

**OSHA Z-3 / TWA:** 8-hour time weighted average

**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/>

**Prepared by:** PremierRepak, Inc.

<http://premierrepak.com/>

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 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 including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.