

Section 1-Chemical Product and Company Identification

Manufacturer or supplier's details

Company name of supplier : PremierRepak Inc.
Address : 8351 W. 185th Street
Tinley Park, IL 60487
www.premierrepak.com
Telephone : (708) 444-2688
Fax : (708) 429-4280
Emergency Phone Number : InfoTrac 24-hour Emergency Number : 1 (800) 535-5053
InfoTrac Contract Number : 105384

Recommended use of the chemical and restrictions on use

Recommended use : Adhesive, binding agents

Section 2-Hazard Identification

GHS classification in accordance with 29 CFR 1910.1200

Skin Sensitization : Category 1
Specific target organ, systemic toxicity-repeated exposure (Oral) : Category 2 (Blood)

GHS Label elements

Hazard pictograms :



Signal Word : WARNING

Hazard Statements : H317 May cause allergic skin reaction.
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 / mist / vapors / spray.
P272 Contaminated work clothing must not be allowed out in workplace.
P280 Wear protective gloves.

Responses:

P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P314: Get medical advice/attention if you feel unwell.
P333+P313: If skin irritation or rash occurs. 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

Substance/Mixture: Mixture

Chemical Nature: Silicone elastomer

Hazardous Ingredients

Chemical Name	C.A.S. No.	Wt. %
Silicon dioxide	7631-86-9	>= 5 - < 10
Methyltri (ethylmethylketoxime) silane	22984-54-9	>= 1 - < 5
Vinyltri (methylethylketoxime) silane	2224-33-1	>= 0.1 - < 1
N-(3-(Trimethoxysilyl)propyl)ethylenediamine	1760-24-3	>= 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: If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact: In case of contact, immediately flush skin with soap and 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 if symptoms occur.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: May cause an allergic skin reaction.
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
Carbon dioxide (CO₂)
Dry chemical

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, Nitrogen oxides (NO_x)

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 **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, based on the results of the workplace exposure assessment.

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

Ingredients with workplace control parameters

Ingredient	C.A.S. Number	Value Type (Form of Exposure)	Control parameters / Permissible concentration	Basis
Silicon Dioxide	7631-86-9	TWA (Dust)	20 million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m ³ / %SiO ₂ (Silica)	OSHA Z-3
		TWA	6 mg/m ³ (Silica)	NIOSH REL

Hazardous Component without workplace control parameters

Ingredients	C.A.S. Number
Methyl-tri(ethylmethylketoxime) silane	22984-54-9
Vinyltri (ethylmethylketoxime) silane	2224-33-1
N-(3-(Trimethoxysilyl)propyl) ethylenediamine	1760-24-3
Methyl-tri(ethylmethylketoxime)silane isomers and oligomers	Not Assigned

These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

Silicon dioxide

Occupational exposure limits of decomposition products

Ingredient	C.A.S. Number	Value Type (Form of Exposure)	Control parameters / Permissible concentration	Basis
Ethyl methyl ketoxime	96-29-7	TWA	0.15 ppm	Customer derived OEL
	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 chemical of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of the 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 require added precautions.

Section 9- Physical/Chemical Characteristics

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

Self-ignition: The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.

Upper explosion limit / Upper flammability limit: No data available

Lower explosion limit / Lower flammability limit: No data available

Relative Density: 1.04

Solubility(ies)

Water solubility: No data available.

Partition coefficient: n-octanol/water: No data available

Auto ignition 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 upon contact 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: 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

Acute toxicity:

Not classified based on available information.

Ingredients:

Silicon dioxide:

Acute oral 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.

Acute inhalation 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.

Acute dermal 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:

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

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

Remarks: On basis of test data.

Vinyltri(methylethylketoxime)silane:

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

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

Remarks: On basis of test data.

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

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

Remarks: On basis of test data.

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

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

Remarks: On basis of test data.

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

Exposure time: 4 h

Test atmosphere: dust/mist

Remarks: On basis of test data.

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

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

Remarks: On basis of test data.

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: On basis of test data.

Serious eye damage/eye irritation:

Not classified based on available information

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: On basis of test data.

Vinyltri(methylethylketoxime)silane:

Species: Rabbit

Result: Irreversible effects on the eye.

Remarks: On basis of test data.

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

Species: Rabbit

Result: Irreversible effects on the eye.

Remarks: On basis of 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

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

Result: negative

Remarks: Information taken from reference works and the literature.

Methyltri(ethylmethylketoxime)silane:

Assessment: Probability or evidence of skin sensitization in humans

Test Type: Maximization Test

Species: Guinea pig

Result: positive

Remarks: On basis of test data.

Vinyltri(methylethylketoxime)silane:

Assessment: Probability or evidence of skin sensitization in humans

Test Type: Maximization Test

Species: Guinea pig

Result: positive

Remarks: Based on data from similar materials.

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

Assessment: Probability or evidence of skin sensitization in humans

Test Type: Maximization Test

Species: Guinea pig

Result: positive

Remarks: 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
Species: Guinea pig
Result: positive
Remarks: Based on data from similar materials.

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: On basis of test data.

Vinyltri(methylethylketoxime)silane:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: On basis of test data.

Genotoxicity in vivo: Test Type: In vivo micronucleus test
Species: Mouse
Application Route: Intraperitoneal injection
Result: Negative
Remarks: On basis of test data.

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

Carcinogenicity:
Not classified based on available information.

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

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.

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

Symptoms: No effects on fertility.

Remarks: On basis of 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: On basis of 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

Symptoms: No effects on fertility.

Remarks: On basis of test data

Effects on fetal development: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test

Application Route: Ingestion

Symptoms: No effects on fetal development.

Remarks: On basis of 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

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: No significant health effects observed 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

Application Route: Ingestion

Target Organs: Blood

Remarks: On basis of test data

Vinyltri(methylethylketoxime)silane:

Species: Rat

Application Route: Ingestion

Target Organs: Blood

Remarks: Based on data from similar materials

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

Application Route: Ingestion

Remarks: On basis of test data

Methyltri(ethylmethylketoxime)silane isomers and oligomers:

Species: Rat

Application Route: Ingestion

Target Organs: Blood

Remarks: Based on data from similar materials

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

Ecotoxicology Assessment

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

Vinyltri(methylethylketoxime)silane:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

LC50 (Oryzias latipes (Orange-red killifish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

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 sp. (Water flea)): 81 mg/l
Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2

EC50 (Daphnia magna (Water flea)): 90 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: On basis of test data

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 microorganisms: EC50 (Pseudomonas putida): 67 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8

Persistence and degradability:

Ingredients:

Methyltri(ethylmethylketoxime)silane:

Biodegradability: Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301A
Remarks: Based on data from similar materials

Vinyltri(methylethylketoxime)silane:

Biodegradability: Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

Stability in water: Degradation half-life: < 1 min (2° C)
Method: OECD Test Guideline 111

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

Bio accumulative potential

Ingredients:

Methyltri(ethylmethylketoxime)silane:

Partition coefficient n- octanol/water: log Pow: 11.2

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: 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

Section 15- Hazard Classification

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity:

Ingredients	CAS Number	Component RQ (lbs)	Calculated product RQ(lbs)
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:

Ingredients	CAS Number	Component RQ (lbs)	Calculated product RQ(lbs)
Ethylenediamine	107-15-3	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 Extremely Hazardous Substance Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ

SARA 311/312 Hazards

Respiratory or skin sensitization

Specific target organ toxicity (single or repeated exposure)

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
Silicon dioxide	7631-86-9
Methyltri(ethylmethylketoxime)silane	22984-54-9
Aluminum	7429-90-5

California Prop. 65

WARNING: This product can expose you to chemicals including Methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Permissible Exposure Limits for Chemical Contaminants

Silicon dioxide

7631-86-9

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

TSCA: All chemical substances in this material are either listed on the TSCA Inventory or are in compliance with a TSCA inventory exemption.

AICS: All ingredients listed or exempt.

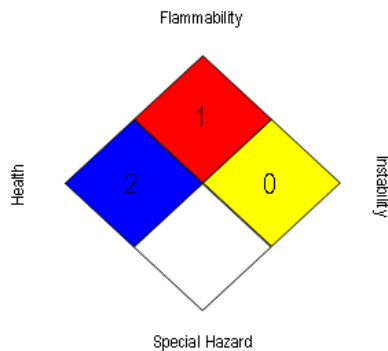
DSL: All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

Section 16 – Other Information

Further information:

NFPA:

HMIS® IV:



HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations:

NIOSH REL: USA. NIOSH Recommended Exposure Limits.

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

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

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 TWA

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 Standardization **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** = Global Harmonization System **GLP** = Good Laboratory Practice **HMIS** = Hazardous Material Identification System **IARC** = The International Agency for Research on Cancer **IATA** = International Air Transportation 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 Maritime Dangerous Goods **IMO** = International Maritime Organization **ISHL** = Industrial Safety and Health Law (Japan) **ISO**

= International Organization for Standardization **KECI** = Korea Existing Chemicals Inventory **LC50** = Lethal Concentration of 50% of a test population **LD50** = Lethal Dose of 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 Observed (Adverse) 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, Bio accumulative and Toxic Substances **PICCS** = Philippines Inventory of Chemicals and Chemical Substances **(Q)SAR** = (Quantative) 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, Authorization 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 Substances 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 Bio accumulative

Sources of key data used to compile the 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/>

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