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SAFETY DATA SHEET

1. Identification

Material name: VANDEX SUPER - 50# BAG HT

Material: V001P 50

Recommended use and restriction on use

Recommended use: Cement, Portland, chemicals

Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY 19218 REDWOOD ROAD CLEVELAND OH 44110

US

Contact person:EH&S DepartmentTelephone:216-531-9222

Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 1
Skin sensitizer Category 1
Carcinogenicity Category 1A
Specific Target Organ Toxicity - Category 3¹

Single Exposure

Specific Target Organ Toxicity - Category 1^{1.}

Repeated Exposure

Target Organs

1. Respiratory tract irritation.

2. Lung

Unknown toxicity - Health

Acute toxicity, oral 86.7 %
Acute toxicity, dermal 86.7 %
Acute toxicity, inhalation, vapor 100 %
Acute toxicity, inhalation, dust 100 %
or mist

Label Elements

Hazard Symbol:





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Signal Word: Danger

Hazard Statement: Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure by

inhalation.

Precautionary Statements

Prevention: Wash thoroughly after handling. Wear protective gloves/protective

clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapours/spray. Do

not eat, drink or smoke when using this product.

Response: IF INHALED: Remove person to fresh air and keep comfortable for

breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Wash contaminated clothing before

reuse.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly

closed.

Disposal: Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC):

None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
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Portland cement	65997-15-1	50 - <100%
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	20 - <50%
Sodium carbonate	497-19-8	10 - <20%
Tartaric Acid	87-69-4	1 - <5%

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

4. First-aid measures

Ingestion: Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Get medical attention. Destroy or thoroughly clean contaminated shoes.

Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction

develops, get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do,

remove contact lenses. Call a physician or poison control center

immediately.

Most important symptoms/effects, acute and delayed

Symptoms: Prolonged or repeated contact with skin may cause redness, itching,

irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing. Respiratory tract irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing

media:

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing

media:

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical:

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting

procedures:

No data available.



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Special protective equipment for fire-fighters:

Self-contained breathing apparatus and full protective clothing must be

worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate

protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up:

Collect spillage in containers, seal securely and deliver for disposal

according to local regulations.

Notification Procedures:

In the event of a spill or accidental release, notify relevant authorities in

accordance with all applicable regulations.

Environmental Precautions:

Do not contaminate water sources or sewer. Prevent further leakage or

spillage if safe to do so.

7. Handling and storage

Precautions for safe handling:

Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage,

including any incompatibilities:

Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Туре	Exposure Limit Values	Source
Portland cement - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (2011)
Portland cement - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Portland cement - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Portland cement	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.05 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
	OSHA_AC T	0.025 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)





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Crystalline Silica (Quartz)/	PEL	0.05 mg/m3	US. OSHA Table Z-1 Limits for Air
Silica Sand - Respirable dust.			Contaminants (29 CFR 1910.1000) (03 2016)
Crystalline Silica (Quartz)/	TWA	2.4 millions	US. OSHA Table Z-3 (29 CFR 1910.1000)
Silica Sand - Respirable.		of particles	(2000)
		per cubic foot	
		of air	
	TWA	0.1 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000)
			(2000)

Chemical name	Туре	Exposure Limit Values	Source
Portland cement - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Portland cement - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Portland cement - Respirable dust.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)



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Chemical name	Туре	Exposure Limit Values	Source
Portland cement - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Portland cement - Respirable fraction.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Portland cement - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Portland cement - Respirable dust.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
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Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required.

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation

rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to

maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable

level.

Eye/face protection: Wear a full-face respirator, if needed. Wear safety glasses with side shields

(or goggles) and a face shield.

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves,

footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific

information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from

local supervisor.



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Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and

immediately after handling the product. Do not get in eyes. Wash

contaminated clothing before reuse. Avoid contact with skin. Contaminated

work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state: solid
Form: Powder
Color: Gray
Odor: Odorless

Odor threshold:

pH:

No data available.

Flammability (solid, gas): No Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):

Flammability limit - lower (%):

Explosive limit - upper (%):

Explosive limit - lower (%):

No data available.

No data available.

Vapor pressure:

No data available.

No data available.

No data available.

Relative density: 2.90

Solubility(ies)

Solubility in water: Miscible with water.
Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.

Auto-ignition temperature:No data available.Decomposition temperature:No data available.Viscosity:No data available.

10. Stability and reactivity

Reactivity: No data available.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous

reactions:

No data available.

Conditions to avoid: Avoid heat or contamination.



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Incompatible Materials: No data available.

Hazardous Decomposition

Products:

Thermal decomposition or combustion may liberate carbon oxides and

other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

In high concentrations, vapors, fumes or mists may irritate nose, throat and

mucus membranes.

Skin Contact: May be harmful in contact with skin. Causes skin irritation. May cause an

allergic skin reaction.

Eye contact: Causes serious eye damage.

Ingestion: May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix: 13,300 mg/kg

Dermal

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

Inhalation Product:

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Respiratory or Skin Sensitization

Product: No data available.



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Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Crystalline Silica

(Quartz)/ Silica

Sand

US. National Toxicology Program (NTP) Report on Carcinogens:

Crystalline Silica Known To Be Human Carcinogen.

Overall evaluation: Carcinogenic to humans.

(Quartz)/

Sand

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Crystalline Silica

(Quartz)/ Silica Cancer

Sand

Germ Cell Mutagenicity

In vitro

No data available. Product:

In vivo

No data available. **Product:**

Reproductive toxicity

Product: No data available.

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

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Target Organs

Specific Target Organ Toxicity - Single Exposure: Respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure: Lung

Aspiration Hazard

Product: No data available.

Other effects: No data available.



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12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in

accordance with applicable laws and regulations, and product

characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:



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Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

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

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Chemical Identity
Crystalline Silica
(Quartz)/ Silica Sand

OSHA hazard(s) kidney effects lung effects

immune system effects

Cancer

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Skin Corrosion or Irritation
Serious eye damage or eye irritation
Respiratory or Skin Sensitization
Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.



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SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u> <u>Threshold Planning Quantity</u>

Portland cement 10000 lbs Crystalline Silica (Quartz)/ 10000 lbs

Silica Sand

Sodium carbonate 10000 lbs Tartaric Acid 10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Crystalline Silica (Quartz)/ Carcinogenic. 09 2011

Silica Sand

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

Chemical Identity

Portland cement

Crystalline Silica (Quartz)/ Silica Sand

US. Massachusetts RTK - Substance List

Chemical Identity

Portland cement

Crystalline Silica (Quartz)/ Silica Sand

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Portland cement

Crystalline Silica (Quartz)/ Silica Sand

US. Rhode Island RTK

Chemical Identity

Portland cement

Crystalline Silica (Quartz)/ Silica Sand

International regulations

Montreal protocol

not applicable

Stockholm convention

not applicable



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Rotterdam convention

not applicable

Kyoto protocol not applicable

VOC:

Regulatory VOC (less water and exempt solvent) : 0 g/l

VOC Method 310 : 0.00 %



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Inventory Status:

Canada DSL Inventory List:

All components in this product are listed on or

exempt from the Inventory.

Japan (ENCS) List: One or more components in this product are

not listed on or exempt from the Inventory.

Canada NDSL Inventory: One or more components in this product are

not listed on or exempt from the Inventory.

Philippines PICCS: One or more components in this product are

not listed on or exempt from the Inventory.

US TSCA Inventory:

All components in this product are listed on or

exempt from the Inventory.

Japan ISHL Listing: One or more components in this product are

not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing: One or more components in this product are

not listed on or exempt from the Inventory.

Australia AICS: All components in this product are listed on or

exempt from the Inventory.

EINECS, ELINCS or NLP: All components in this product are listed on or

exempt from the Inventory.

China Inv. Existing Chemical Substances:

All components in this product are listed on or

exempt from the Inventory.

Korea Existing Chemicals Inv. (KECI): All components in this product are listed on or

exempt from the Inventory.

New Zealand Inventory of Chemicals:

All components in this product are listed on or

exempt from the Inventory.

Mexico INSQ:

One or more components in this product are

not listed on or exempt from the Inventory.

Ontario Inventory: One or more components in this product are

not listed on or exempt from the Inventory.

Taiwan Chemical Substance Inventory: One or more components in this product are

not listed on or exempt from the Inventory.



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

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Version #: 2.1

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard

information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including

the safe use of the product under every foreseeable condition.