

SAFETY DATA SHEET

GHS

United States English

Section 1. Identification

Product name VEEGUM® D In case of emergency

Code 71470 1-203-295-2140

Supplier/Manufacturer Vanderbilt Minerals, LLC Chemtrec: 1-800-424-9300
Outside US: +1-703-527-3887

33 Winfield Street Norwalk, CT 06855

Chemical name Magnesium Aluminum Silicate

Synonym Smectite clay, Bentonite, CAS No. 1302-78-9

Material uses Life Sciences and Industrial applications

Product type Solid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Section 2. Hazards identification

OSHA/HCS status While this material is not considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available

for employees and other users of this product.

Classification of the

substance or mixture

Not classified.

GHS label elements

Signal word No signal word.

Hazard statements No known significant effects or critical hazards.

Precautionary statements

General Read label before use. Keep out of reach of children. If medical advice is needed, have

product container or label at hand. Avoid excessive dust generation. Avoid breathing

dust. Use only with adequate ventilation.

Storage Store locked up. Store in a dry place.

Hazards not otherwise

classified

Not an acute hazard. May cause mechanical eye or skin irritation. Prolonged inhalation

may cause lung injury. Physical form is unlikely to generate dust under normal

conditions of use. Material will become slippery when wet.

Section 3. Composition/information on ingredients

Substance/mixture Substance

Chemical name Magnesium Aluminum Silicate

Ingredient name	CAS number	% by weight
smectite clay	12199-37-0	100

Section 3. Composition/information on ingredients

Non-respirable crystalline silica (quartz, CAS number 14808-60-7) contained as an impurity between 0.1% and 1% in this product is encapsulated within the clay particle. Exposure to free respirable guartz is not expected under normal conditions of use and processing of this product. Respirable guartz may be released by vigorous grinding or abrading of this product.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact Flush with plenty of water for at least 15 minutes, occasionally lifting upper and lower

eyelids. If irritation develops and persists, seek medical attention.

Skin contact Flush skin with plenty of water. Seek medical attention if irritation develops. Inhalation Move to fresh air. If respiratory distress develops, seek medical attention.

Ingestion Unlikely to be toxic by ingestion. Rinse mouth out with water. Do not induce vomiting

unless directed to do so by medical personnel. Seek medical attention if significant

quantities have been ingested or symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact Not a primary eye irritant. May cause mechanical irritation.

Skin contact No known significant effects or critical hazards. Inhalation No known significant effects or critical hazards. Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data. Skin contact No specific data. Inhalation No specific data. Ingestion No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. **Specific treatments** No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

This product is not combustible. Use an extinguishing agent suitable for the

No specific fire or explosion hazard. This product is not flammable and does not

surrounding fire.

Unsuitable extinguishing

media

No restrictions on extinguishing media for this product.

Specific hazards arising

from the chemical support fire.

Hazardous thermal decomposition products There are no hazardous decomposition products.

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Section 5. Fire-fighting measures

Special protective actions for fire-fighters

Product may become slippery when wet.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill Minimize dust generation.

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal

contractor.

Large spill Minimize dust generation.

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Advice on general occupational hygiene

Put on appropriate personal protective equipment (see Section 8).

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene

measures.

Conditions for safe storage,

Recommended Storage

including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Store away from direct sunlight in dry conditions. Close container after use.

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
smectite clay	OSHA PEL (United States). TWA: 15 mg/m³ total dust; 5 mg/m³ from respirable dust (PNOR) ACGIH TLV (United States). TWA: 10 mg/m³ inhalable dust; 3 mg/m³ from respirable dust (PNOS)

Non-respirable crystalline silica (quartz, CAS number 14808-60-7) contained as an impurity between 0.1% and 1% in this product is encapsulated within the clay particle. Exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by vigorous grinding or abrading of this product.

The OSHA PEL for quartz (respirable fraction) is 0.05 mg/m³ as a TWA. The ACGIH TLV for quartz (respirable fraction) is 0.025 mg/m³ as a TWA.

Appropriate engineering controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below established levels below recommended exposure limits. If user operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: splash goggles

Skin protection

Hand protection Body protection Protective gloves should be worn under normal conditions of use.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before

handling this product.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: disposable particulate mask

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Section 8. Exposure controls/personal protection

Personal protective equipment (Pictograms)



Section 9. Physical and chemical properties

Appearance

Physical state Solid. [Granules]
Color Off-white to tan.

Odorless.

pH 9 [Conc. (% w/w): 5%]

Melting pointNot applicable.Boiling pointNot applicable.Flash pointNot applicable.Evaporation rateNot applicable.Vapor pressureNot applicable.Vapor densityNot applicable.

Relative density 2.6
Solubility in water Insoluble
Viscosity Not applicable.

Section 10. Stability and reactivity

Reactivity Not reactive

Chemical stability The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data.

Incompatible materials No specific data.

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

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Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not applicable.

Information on the likely routes of exposure

Not available.

Potential chronic health effects

General

Non-respirable crystalline silica (quartz, CAS number 14808-60-7) contained as an impurity between 0.1% and 1% in this product is encapsulated within the clay particle. Exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by vigorous grinding or abrading of this product.

Overexposure to respirable crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. "Inhalable" crystalline silica (quartz) is listed by IARC as a Group 1 carcinogen (lung) based on "sufficient evidence" in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Some studies have not demonstrated a cancer association and controversy exists concerning the IARC and NTP classification.

Excessive exposure to any dust may aggravate pre-existing respiratory conditions.

CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information Not available.

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Section 12. Ecological information

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not regulated.	-	-	-		-
TDG Classification	Not regulated.	-	-	-		-
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

PG*: Packing group

Section 15. Regulatory information

U.S. Federal regulations

United States Inventory (TSCA 8b)

All components are active or exempted.

SARA 302/304

Composition/information on ingredients

No products were found.

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Section 15. Regulatory information

Classification Not applicable.

State regulations

MassachusettsNone of the components are listed.New YorkNone of the components are listed.New JerseyNone of the components are listed.PennsylvaniaNone of the components are listed.

California Prop. 65



WARNING: This product can expose you to Silica, crystalline, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Crystalline silica (quartz, as an impurity) contained in this product is encapsulated within the clay particle. Exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by vigorous grinding, or abrading of this product.

International regulations

International lists Australia Inventory (AIIC): All components are listed or exempted.

Canada Inventory: All components are listed or exempted.

China Inventory (IECSC): All components are listed or exempted.

Europe inventory: All components are listed or exempted.

Japan Inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted. Korea inventory: All components are listed or exempted.

Mexico inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines Inventory (PICCS): All components are listed or exempted.

Thailand Inventory: All components are listed or exempted. **Turkey Inventory (CICR)**: All components are listed or exempted.

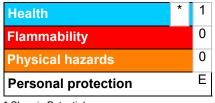
Taiwan Chemical Substances Inventory (TCSI): All components are listed or exempted.

United States Inventory (TSCA 8b): All components are active or exempted.

Vietnam Inventory (NCI): All components are listed or exempted.

Section 16. Other information

Hazardous Material Identification System (U.S.A.)



National Fire Protection Association (U.S.A.)



The customer is responsible for determining the PPE code for this material.

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^{*} Chronic Potential

Section 16. Other information

ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Information contact Vanderbilt Global Services, LLC

Corporate Risk Management

1-203-295-2143

Visit www.vanderbiltminerals.com for more information.

Notice to reader

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