

SAFETY DATA SHEET

GHS

United States English

Section 1. Identification

Product name BILT-PLATES® 156

In case of emergency

1-203-295-2140

Code 08556

Chemtrec: 1-800-424-9300

Supplier/Manufacturer Vanderbilt Minerals, LLC 33 Winfield Street

Outside US: +1-703-527-3887

Norwalk, CT 06855

Chemical name Hydrated aluminum silicate mineral

Synonym Clay, kaolin, kaolinite

Material uses Additive filler in rubber and paper

Product type Solid.

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

Not applicable.

Section 2. Hazards identification

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the CARCINOGENICITY (inhalation) - Category 1A

substance or mixture SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (respiratory tract)

(inhalation) - Category 1

GHS label elements

Hazard pictograms



Signal word Danger

Hazard statements May cause cancer if inhaled.

Causes damage to organs through prolonged or repeated exposure if inhaled.

(respiratory tract)

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.

Prevention Obtain special instructions before use. Do not handle until all safety precautions have

been read and understood. Use personal protective equipment as required. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash hands

thoroughly after handling.

Response Get medical attention if you feel unwell. IF exposed or concerned: Get medical

attention.

Storage Store locked up. Store in a dry place.

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 1/9

Section 2. Hazards identification

Disposal Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Hazards not otherwise

classified

Not an acute hazard. May cause mechanical eye or skin irritation in high concentrations. Prolonged inhalation may cause lung injury. Material will become slippery when wet.

Section 3. Composition/information on ingredients

Substance/mixture Substance

Chemical name Hydrated aluminum silicate mineral

| Ingredient name | CAS number | % by weight |
|-----------------|------------|-------------|
| kaolin clay | 1332-58-7 | 95 - 98 |
| mica | 12001-26-2 | 1 - 3 |
| quartz | 14808-60-7 | 0.35 |

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 contactFlush skin with plenty of water. Seek medical attention if irritation develops.

Inhalation

Move to fresh air. If respiratory distress develops, seek medical attention.

IngestionUnlikely 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 contactNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contactNo specific data.Skin contactNo specific data.InhalationNo specific data.IngestionNo 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-aidersNo action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 2/9

Section 4. First aid measures

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 surrounding fire.

Unsuitable extinguishing

media

No restrictions on extinguishing media for this product.

Specific hazards arising from the chemical

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

support fire.

Hazardous thermal decomposition products

There are no hazardous decomposition products.

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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill Minimize dust generation.

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, 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.

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 3/9

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

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, 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. Store locked up. 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.

Recommended Storage

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

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|---|
| kaolin clay | OSHA PEL (United States). |
| • | TWA 5 mg/m³ from respirable fraction |
| | ACGIH TLV (United States). |
| | TWA 2 mg/m³ from respirable fraction |
| mica | OSHA PEL (United States). |
| | TWA 3 mg/m³ from respirable fraction |
| | ACGIH TLV (United States). |
| | TWA 3 mg/m³ from respirable fraction |
| quartz | OSHA PEL (United States). |
| • | TWA: 0.05 mg/m³ from respirable fraction |
| | ACGIH TLV (United States). |
| | TWA: 0.025 mg/m ³ from respirable fraction |

Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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 containinants 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

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 4/9

Section 8. Exposure controls/personal protection

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 Protective gloves should be worn under normal conditions of use.

Body protection 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

Personal protective equipment (Pictograms)



Section 9. Physical and chemical properties

Appearance

Physical state Solid. [Powdered solid]

Color White.
Odor Odorless.

pH 4.5 [Conc. (% w/w): 10%]

Melting pointNot available.Boiling pointNot applicable.

Flash point [Product does not sustain combustion.]

Evaporation rate

Vapor pressure

Vapor density

Relative density

Solubility in water

Viscosity

Not applicable.

Not applicable.

Not available.

Not available.

Not available.

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 5/9

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

Not available.

Carcinogenicity

Not available.

Conclusion/Summary

KAOLIN: Published literature suggests that extremely high exposures to kaolin dust over a prolonged period of time can lead to a low category pneumoconiosis (with little respiratory disability) in a small number of workers.

CRYSTALLINE SILICA: 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 I 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.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------------|------|------|---------------------------------|
| crystalline silica respirable | - | 1 | Known to be a human carcinogen. |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 6/9

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

| Name | 3 3 3 | Route of exposure | Target organs |
|--------|------------|-------------------|-------------------|
| quartz | Category 1 | Inhalation | respiratory tract |

Aspiration hazard

Not applicable.

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Inhalation.

Potential chronic health effects

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

Carcinogenicity May cause cancer if inhaled. Risk of cancer depends on duration and level of exposure.

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.

Section 12. Ecological information

Toxicity

Not available.

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

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 7/9

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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 listed or exempted.

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification Delayed (chronic) health hazard

State regulations

Massachusetts The following components are listed: Kaolin; mica

New York None of the components are listed.

New Jersey The following components are listed: KAOLIN; mica; SILICA, QUARTZ; QUARTZ (SiO2)

Pennsylvania The following components are listed: Kaolin; QUARTZ (SiO2)

California Prop. 65



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

International regulations

Canada inventoryAll components are listed or exempted. **Europe inventory**All components are listed or exempted.

International lists

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 8/9

Section 15. Regulatory information

Australia inventory (AICS): All components are listed or exempted. **China inventory (IECSC)**: All components are listed or exempted.

Japan inventory: All components are listed or exempted. **Korea inventory**: All components are listed or exempted.

Malaysia Inventory (EHS Register): All components are listed or exempted.

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

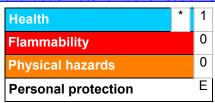
Philippines inventory (PICCS): All components are listed or exempted.

Taiwan Chemical Substances Inventory (TCSI): 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. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

History

Date of printing3/8/2019Validation date2/28/2019Date of previous issue4/23/2015Version0.02

Key to abbreviations 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

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

Validation date : 2/28/2019 Date of previous issue : 4/23/2015 9/9

^{*} Chronic Potential