



SAFETY DATA SHEET

Issue Date 07-Sep-2012

Revision Date 09-Jun-2021

Version 2

VM-1000

Brickform Vertical Mix

1. IDENTIFICATION

Product identifier

Product Name Brickform Vertical Mix

Other means of identification

Product Code VM-1000

Recommended use of the chemical and restrictions on use

Recommended Use Restricted to professional users.

Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address

Solomon Colors, Inc.
4050 Color Plant Road
Springfield, IL
62702

Manufacturer Address

Solomon Colors, Inc.
4050 Color Plant Road
Springfield, IL
62702

Company Phone Number 800-624-0261 (US & Canada); 217-522-3112 (Outside North America)

24 Hour Emergency Phone Number 1-800-373-7543

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This product is classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012) and the Hazardous Products Regulations SOR/2015-17 (known as WHMIS 2015).

| | |
|--|-------------|
| Acute toxicity - Inhalation (Dusts/Mists) | Category 1 |
| Carcinogenicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Specific target organ toxicity (repeated exposure) | Category 1 |

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if inhaled
May cause cancer by inhalation
May cause respiratory irritation
Causes damage to organs through prolonged or repeated exposure



Overexposure to dust can cause chronic lung injury. Acute silicosis may develop in a short timewith heavy exposure. Silicosis can be progressive and may cause death.

Appearance Grey Powder

Physical state Powder

Odor Slight

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove person to fresh air and keep comfortable for breathing

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Weight-% | Trade Secret |
|----------------------------|------------|----------|--------------|
| Quartz, Crystalline Silica | 14808-60-7 | 40-50 | * |
| Portland Cement | 65997-15-1 | 20-30 | * |
| Limestone | 1317-65-3 | < 10 | * |

Chemical Additions

Portland cement contains the following: Magnesium Oxide, Calcium Oxide, and Gypsum.
The ranges above account for batch-to-batch variability.

4. FIRST AID MEASURES

Description of first aid measures

General advice

In case of accident or unwellness, seek medical advice immediately (show directions for

use or safety data sheet if possible).

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|---------------------|--|
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician. |
| Skin Contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician. |
| Inhalation | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. |
| Ingestion | If swallowed, call a poison control center or physician immediately. Rinse mouth. Do not induce vomiting without medical advice. |

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|---|
| Symptoms | General: Prolonged or repeated inhalation may damage lungs. Inhalation: May cause respiratory irritation, sneezing, coughing, burning sensation in the throat or constriction of the larynx, or difficulty breathing. Eye contact: Redness, irritation or pain. Skin: Prolonged contact with large amounts of this product may cause mechanical irritation. Dust may cause irritation in skin folds or by contact in combination with tight clothing. Ingestion: Abdominal pain. Chronic symptoms: Shortness of breath, wheezing, cough and sputum production. May cause cancer, silicosis, lung disease, autoimmune disease, tuberculosis, and nephrotoxicity. May cause allergic skin reaction. |
|-----------------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|---------------------------|------------------------|

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Thermal decomposition can lead to the release of irritating gases and vapors. Carbon monoxide. Carbon dioxide (CO₂). Metal Oxides. Oxides of sulfur.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|--|
| Personal precautions | Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas. Avoid breathing dust/fume/gas/mist/vapors/spray. |
|-----------------------------|--|

Environmental precautions

| | |
|----------------------------------|---|
| Environmental precautions | Prevent further leakage or spillage if safe to do so. See Section 12 for additional ecological information. |
|----------------------------------|---|

Methods and material for containment and cleaning up

| | |
|--|--|
| Methods for containment | Vacuum or sweep up material and place in a designated labeled waste container. |
| Methods for cleaning up | With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Pick up and transfer to properly labeled containers. For disposal see section 13. |
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. |

7. HANDLING AND STORAGE

Precautions for safe handling

| | |
|--------------------------------|---|
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. |
|--------------------------------|---|

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------------|---|
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. |
| Incompatible materials | Cement is reactive or incompatible with oxidizing materials, acids, aluminum, and ammonium salt. Cement is highly alkaline and will react violently with acids that can produce toxic gases or vapors. Silica reacts violently with oxidizing agents. Silicates dissolve readily in hydrofluoric acid and produces corrosive gas. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|--|--|--|
| Quartz, Crystalline Silica 14808-60-7 | TWA: 0.025 mg/m ³ respirable particulate matter | TWA: 50 µg/m ³ TWA: 50 µg/m ³ excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction | IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust |
| Portland Cement 65997-15-1 | TWA: 1 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction TWA: 50 mppcf <1% Crystalline silica | IDLH: 5000 mg/m ³ TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust |
| Limestone 1317-65-3 | - | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust |

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear protective gloves and protective clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state
Appearance
Color

Powder
Grey Powder
Grey

Odor
Odor threshold

Slight
Not applicable

Property
pH

Values
> 11 (alkaline when wet)

Remarks • Method

| | |
|--------------------------------------|--------------------------|
| Melting point/freezing point | No information available |
| Boiling point / boiling range | > 1000 °C |
| Flash point | Not Applicable (Solid) |
| Evaporation rate | Not Applicable |
| Flammability (solid, gas) | No information available |
| Flammability Limit in Air | |
| Upper flammability limit: | No information available |
| Lower flammability limit: | No information available |
| Vapor pressure | No information available |
| Vapor density | No information available |
| Specific Gravity | 2.9 |
| Water solubility | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Dynamic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

Other Information

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| Molecular weight | No information available |
| VOC Content (%) | No information available |
| Density | No information available |
| Bulk density | 20-25 lbs/gal |

10. STABILITY AND REACTIVITY

Reactivity

Reacts slowly with water forming hydrated products

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Reactive or incompatible with oxidizing materials, acids, aluminum and ammonia salts.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Cement is reactive or incompatible with oxidizing materials, acids, aluminum, and ammonium salt. Cement is highly alkaline and will react violently with acids that can produce toxic gases or vapors. Silica reacts violently with oxidizing agents. Silicates dissolve readily in hydrofluoric acid and produces corrosive gas.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO₂). Sulfur oxides. Metal Oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|----------------------------|--|
| Product Information | The product is not known to present an acute toxicity hazard based on known or supplied information for the mixture components. |
| Inhalation | Harmful by inhalation. Inhalation can cause serious, potentially irreversible lung/respiratory tract tissue damage due to chemical (caustic) burns, including third degree burns. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure. Inhalation can cause silicosis. |
| Eye contact | Avoid contact with eyes. Risk of serious damage to eyes. |
| Skin Contact | Irritating to skin. May cause burns in the presence of moisture. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. |
| Ingestion | May be harmful if swallowed. Can burn mouth, throat, and stomach. |

Information on toxicological effects

| | |
|-----------------|--|
| Symptoms | General: Prolonged or repeated inhalation may damage lungs. Inhalation: May cause respiratory irritation, sneezing, coughing, and burning sensation. Eye contact: Redness, irritation, pain. Caused serious eye damage. |
|-----------------|--|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|--|
| Skin corrosion/irritation | May cause serious burns in the presence of moisture. |
| Serious eye damage/eye irritation | May cause serious burns in the presence of moisture. Risk of serious damage to eyes. |
| Sensitization | Repeated or prolonged contact may cause allergic reactions in very susceptible persons. |
| Germ cell mutagenicity | Not classified. (Based on mixture components). |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|--|-------|---------|-------|------|
| Quartz, Crystalline Silica 14808-60-7 | A2 | Group 1 | Known | X |

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - *Suspected Human Carcinogen*

IARC (International Agency for Research on Cancer)

Group 1 - *Carcinogenic to Humans*

The International Agency for Research on Cancer ("IARC") concluded that there was "sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite. Crystalline silica in the form of quartz or cristobalite dust causes cancer of the lung", and that there is "sufficient evidence in experimental animals for the carcinogenicity of quartz dust" The overall IARC evaluation was that "crystalline silica quartz or cristobalite dust is carcinogenic to humans (Group 1)."

NTP (National Toxicology Program)

Known - *Known Carcinogen*

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - *Present*

| | |
|---------------------------------|--|
| Reproductive toxicity | Not classified. (Based on mixture components). |
| STOT - single exposure | Target Organs. Respiratory system. Inhalation can cause serious, potentially irreversible lung/respiratory tract tissue damage due to chemical (caustic) burns, including third degree burns. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure. |
| STOT - repeated exposure | Causes damage to lungs through prolonged or repeated exposure if inhaled. Overexposure to dust can cause chronic lung injury such as chronic silicosis, accelerated silicosis, and acute silicosis. 1) Simple chronic silicosis –which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis –occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis –results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe |

shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. Corrosive to the respiratory tract. Several studies have also reported excess cases of kidney diseases in silica exposed workers. Respiratory system, lungs, kidney. Not classified. (Based on mixture components).

Target Organ Effects
Aspiration hazard

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .
 ATEmix (oral) > 5000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product has not been fully evaluated on the product level.

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

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

Contaminated packaging

Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

| | |
|-------------------|---------------|
| <u>DOT</u> | Not regulated |
| <u>TDG</u> | Not regulated |
| <u>MEX</u> | Not regulated |
| <u>ICAO (air)</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| <u>IMDG</u> | Not regulated |
| <u>RID</u> | Not regulated |
| <u>ADR</u> | Not regulated |
| <u>ADN</u> | Not regulated |

15. REGULATORY INFORMATION

International Inventories

| | |
|----------------------|-----------------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Does not comply |
| ENCS | Does not comply |
| IECSC | Complies |
| KECL | Does not comply |
| PICCS | Does not comply |
| AICS | Does not comply |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA): This product does not contain chemicals at levels that are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

See section 2 for more information

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain substances that would exceed the reportable quantity as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

WARNING: This product can expose you to chemicals including Silica, Crystalline which are known to the State of California to cause cancer, and chemicals including Hexavalent Chromium which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

U.S. State Right-to-Know Regulations

This product contains substances regulated by state right-to-know regulations. For more information, please contact your sales or technical representative.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

| | | | | |
|-------------|------------------|----------------|--------------------|------------------------------------|
| NFPA | Health hazards 3 | Flammability 0 | Reactivity 0 | Physical and Chemical Properties - |
| HMIS | Health hazards 3 | Flammability 0 | Physical hazards 0 | Personal protection X |

| | |
|----------------------|---|
| Prepared By | Solomon Colors - Lab Technical Services |
| Issue Date | 07-Sep-2012 |
| Revision Date | 09-Jun-2021 |
| Revision Note | |
| Periodic Review | |

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet