Safety Data Sheet (SDS)

Section 1: Product and Company Information

Product Name: Terre Hill Concrete Products Concrete Block

Product Identifiers: Concrete Block

Manufacturer: Terre Hill Concrete Products
485 Weaverland Valley Road
Terre Hill, PA 17581

Telephone No. Information
800 242 1509 (8 AM-4PM EST)

Telephone No. Emergency

Product Use: Many applications in the building and construction industries.

Section 2: Composition/Information on Ingredients

Component	Percent (by weight)	CAS #	OSHA PEL-TWA (mg/m^3)	ACGIH TLV-TWA (mg/m^3)	LD_{50}	LC_{50}
Crystalline Silica	1-5%	14808-60-7	[(10)/(SiO_2+2)] (R); [(30)/(SiO_2+2)] (T)	0.025R	NA	NA
Calcium Hydroxide	15-25%	1305-62-0	15 (T) 5 (R)	5 (T)	7300mg/kg	NA
Portland Cement	0-10%	65997-15-1	15 (T) 5 (R)	1 (R)	NA	NA
Other Particulate	NA	NA	15 (T) 5 (R)	10 (T) 3 (R)	NA	NA

Note:

Concrete is a mixture of gravel or rock, sand, Portland cement and water. It may also contain fly ash, slag, silica flume, calcined clay, fibers (metallic or other) and color pigment.

Concrete contains cement which is made of materials mined from the earth and is processed using energy provided by fuels. Trace amounts of chemicals may be detected during chemical analysis. For example, cement may contain trace amounts of calcium oxide (also known as free lime or quick lime), free magnesium oxide, potassium and sodium sulfate compounds, chromium compounds, nickel compounds, and other trace compounds.

WARNING

Section 3: Hazard Identification

Toxic-Harmful by Inhalation.

Contains crystalline silica

Use proper engineering controls, work practices, and personal protective equipment to prevent exposure to wet or dry product.

Read SDS for details.

Section 3: Hazard Identification (continued)

Emergency Overview: Concrete blocks vary in size, shape and weight, depending on final intended use. They are not combustible or explosive. Concrete block in their intact state will not release airborne concrete dust, but concrete dust can be produced during cutting, drilling, grinding, chasing, crushing, breaking and other machining of the concrete block. A single, short term exposure to concrete block dust presents little or no hazard.

Potential Health Effects:

Eye Contact: Airborne concrete dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of concrete dust can cause moderate eye irritation and abrasion. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Skin Contact: Concrete dust may cause dry skin, discomfort, irritation and dermatitis.

Dermatitis: Concrete dust, in association with sweat and friction, can lead to skin irritation and dermatitis. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete dust such as abrasion.

Inhalation (acute): Breathing concrete dust may cause nose, throat, or lung irritation, including choking, depending on the degree of exposure.

Inhalation (chronic):

Silicosis: Concrete block contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from concrete block dust can cause silicosis, a seriously disabling and fatal lung disease. See Note to Physicians in Section 4 for further information.

Carcinogenicity: Concrete and concrete block are not listed as a carcinogen by International Agency for Research on Cancer (IARC); U.S. National Toxicology Program (NTP); Globally Harmonized System (GHS); American Conference of Governmental Industrial Hygienists (ACGIH). However, concrete and concrete block contains small amounts of crystalline silica which is classified by IARC, NTP, GHS and ACGIH as a known human carcinogen.

Autoimmune Disease: Some studies show that exposure to respirable crystalline silica (without silicosis) or 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.

Tuberculosis: Silicosis increases the risk of tuberculosis.

Renal Disease: Exposure to respirable silica may increase incidence of chronic kidney disease and end-stage renal disease.

Ingestion: Do not ingest concrete, concrete block or concrete dust. Ingestion may cause distress to the digestive tract.

Medical Conditions Aggravated by Exposure: Individuals with lung disease (e.g. bronchitis, emphysema, chronic obstructive pulmonary disease (COPD), pulmonary disease) can have their condition aggravated by exposure to concrete dust.

Section 4: First Aid Measures

Eye Contact: Rinse eyes thoroughly with water for at least 15 minutes, including under lids, to remove all particles. Seek medical attention for abrasions and burns.

Skin Contact: Wash with cool water and a pH neutral soap or mild skin detergent. Seek medical attention for rash, irritation, dermatitis.

Inhalation: Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

Ingestion: Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control center immediately.

Note to Physician: The three (3) types of silicosis include:

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 present breathlessness and may resemble COPD.
2. Accelerated silicosis-occurs after exposure to larger amounts of respirable crystalline silicosis over a shorter period of time (5-15 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple chronic silicosis.
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.

Progressive massive fibrosis mat occur in simple chronic or accelerated silicosis, but it is more common in accelerated silicosis. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

Section 5: FIREFIGHTING MEASURES:

Flashpoint & Method: Concrete and concrete dust are non-combustible.

General Hazard: Avoid breathing concrete dust.

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Firefighting Equipment: Concrete block does not pose a fire-related hazard. A self-contained breathing apparatus SCBA is recommended to limit exposure to combustion products when fighting a fire.

Combustion Products: None.

Section 6: Accidental Release Measures

General: Place spilled material into a container. Avoid actions that cause the concrete block dust to become airborne. Avoid inhalation of concrete block dust. Wear appropriate protective equipment as described in Section 8.

Waste Disposal: Dispose of concrete block and concrete dust according to applicable Federal, State and Local law and regulations.

Section 7 Handling and Storage:

General: Store concrete block in a secure manner to prevent falling or collapse. Ensure adequate load bearing capacity of ground, floor, platform or other surface when storing concrete block. Concrete block are heavy and pose risks such as sprains and strains to the back, arms, shoulders, and legs during lifting or other movement. Handle with care and use appropriate control measures. Use appropriately rated equipment (such as cranes and rigging equipment and supplies) when moving and placing concrete block.

Usage: Cutting, drilling, grinding, chasing, crushing, breaking and other machining of concrete block will release respirable crystalline silica. Use all appropriate measures of dust control or suppression, and **Personal Protective Equipment (PPE)** described in Section 8.

Housekeeping: Avoid actions that cause concrete block dust to become airborne during clean-up such as dry sweeping or using compressed air or other methods. Use HEPA vacuum or thoroughly wet with water to clean-up concrete block dust. Use **PPE** described in Section 8.

Storage Temperature: Unlimited.

Storage Pressure: Unlimited.

Clothing: Promptly remove and wash/launder all clothing that is dusty or dirty. Thoroughly wash skin after exposure to concrete block dust.

Section 8: Exposure Controls and Personal Protection

Engineering Controls: Use local exhaust or general dilution ventilation or other suppression methods to maintain concrete block dust levels below Personal Exposure Limits (PEL)

Personal Protective Equipment (PPE)

Respiratory Protection: Under ordinary conditions no respiratory protection is required. Wear a **NIOSH** approved respirator that is properly fitted and is in good condition and proper working order when exposed to concrete block dust above PEL (during activities such as cutting, drilling, grinding, chasing, crushing, breaking and other machining of concrete block).

Eye Protection: Wear **ANSI** approved glasses or safety goggles when handling concrete block products and when involved with activities that generate concrete block dust such as cutting, drilling, grinding, chasing, crushing, breaking and other machining of concrete block, to prevent contact with eyes. Wearing contact lenses when handling or using concrete block products, when involved with activities that generate concrete block dust such as cutting, drilling, grinding, chasing, crushing, breaking and other machining of concrete block, is not recommended.

Skin Protection: Wear gloves when handling concrete block products. Remove clothing and protective equipment that becomes dusty. Launder and thoroughly clean such clothing and equipment before reusing.

Foot Protection: Wear **ANSI** approved hard-toed safety boots when using or handling concrete block products.

Section 9: Physical and Chemical Properties

Physical State:	Solid	**Evaporation Rate:**	NA
Appearance:	Various shapes	**pH (in water):**	7
Odor:	None	**Boiling Point:**	None, solid
Vapor Pressure:	NA	**Freezing Point:**	None, Solid
Vapor Density:	NA	**Viscosity:**	None, solid
Specific Gravity:	2.5	**Solubility in Water:**	Not Soluble

Section 10: Stability and Reactivity

Stability: Stable

Incompatibility: None Known

Hazardous Polymerization: None

Hazardous Decomposition: None

Sections 11 and 12: Toxicological and Ecological Information

For questions regarding toxicological and ecological information on concrete block products refer to contact information in Section.

Section 13: Disposal Considerations

Dispose of waste in accordance with Federal, State and Local regulations.

Section 14: Transportation Information

Concrete block products are not classified as a **Hazardous Material** under U.S DOT.

Section 15: Regulatory Information

OSHA/MSHA: Crystalline silica in concrete block products is considered by **OSHA/MSHA** to be a **hazardous chemical** and should be included in the employer's hazard communication program.

CERCLA SUPERFUND: Concrete block and crystalline silica is **not** listed as a **CERCLA/SUPERFUND Hazardous Substance.**

EPCRA SARA Title III: Concrete Block and crystalline silica have been reviewed according to **EPA Hazard Categories** promulgated under Sections 311 and 312 of the **Superfund Amendment and Reauthorization Act of 1986** and is considered a **hazardous chemical** and a delayed health hazard.

EPCRA SARA Section 313: Concrete block contains none of the substances subject to the reporting requirements of **Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.**

RCRA: If discarded in its purchased form, concrete block would not be a hazardous waste either by listing or characteristic. However, under **RCRA,** it is the responsibility of the product user to determine at the time of disposal, whether a material containing the concrete block or derived from the concrete block should be classified as a hazardous waste.

TSCA: Concrete block and crystalline silica are exempt from reporting under the inventory update rule.

WHMIS/DSL: Concrete block containing crystalline silica is classified as D2A, E and is subject to **WHMIS** requirements.

Section 16: Other Information

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS No	Chemical Abstract Service number
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code for Federal Regulations
CL	Ceiling Limit
DOT	U.S. Department of Transportation
EST	Eastern Standard Time
HEPA	High-Efficiency Particulate Air
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
LC_{50}	Lethal Concentration
LD_{50}	Lethal Dose
mg/m^3	Milligrams per cubic meter
MSHA	Mine Safety and Health Administration
NA	Not Applicable
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limitation
pH	Negative log of hydrogen ion
PPE	Personal Protective Equipment
R	Respirable Particulate
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act of 1986
T	Total Particulate
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TWA	Time Weighted Average (8 hours)
WHMIS	Workplace Hazardous Materials Information System

The SDS (Sections 1-16) was revised February 5, 2014.

An electronic version of the MSDS is available at: www.terrehill.com.

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NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE.

WARNING

CONCRETE BLOCK CONTAINS CRYSTALLINE SILICA

TOXIC
HARMFUL BY INHALATION

Use proper engineering controls, work practices, and personal protective equipment to prevent exposure to wet or dry product.

READ SAFETY DATA SHEET (SDS) FOR ADDITIONAL DETAILS.
SDS available online at www.terrehill.com or by calling (717) 445-3100.

NORMAL HANDLING OF CONCRETE BLOCK DOES NOT POSE A HEALTH HAZARD.

However, over-exposure to dust and particulates created when cutting, grinding, or shaping concrete blocks may cause respiratory/lung injury due to the presence of CRYSTALLINE SILICA, a Group 1 carcinogen.