

SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: Concrete Block

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Construction material used in building and hardscape applications.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: King's Material, Inc. 650 12th Avenue SW, Cedar Rapids, Iowa

Telephone Number: 319-363-0233

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: 800-222-1222 **Poison Control Center**

Date of Preparation: May 29, 2015 **Version #:** 1.0

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

Hazard class

Skin irritation 2

Eye irritation 2A

Skin sensitization 1

Carcinogenicity 1A

Specific target organ toxicity - Single exposure 3

Specific target organ toxicity - Repeated exposure 1

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:



Signal Word: Danger

Hazard Statement: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Respirable dust may contain crystalline silica, known to cause cancer. May cause respiratory irritation. Causes damage to lungs through prolonged or repeated exposure.

Prevention: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. 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. Use only outdoors or in a well-ventilated area. Do not breathe dust.

Response: If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: 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. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

SAFETY DATA SHEET

Storage: Not applicable.

Disposal: Dispose of unused or unwanted concrete products in accordance with all local, regional, national and international regulations.

2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable. 47% of the mixture consists of ingredient(s) of unknown acute toxicity

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	UN #	H / F / R / *	CAS No	Wt. %
Coarse aggregate	Not available.	Not available.	Not available.	15 - 60
Portland cement	Not available.	1/0/0	65997-15-1	10 - 30
Ashes (residues)	Not available.	Not available.	68131-74-8	0.1 - 30
Slags, ferrous metal, blast furnace	Not available.	Not available.	65996-69-2	0.1 - 30
Water	Not available.	Not available.	7732-18-5	10 - 30
Silica, crystalline, quartz	Not available.	Not available.	14808-60-7	3 - 7
Ferric oxide	UN1376	1/0/0	1309-37-1	1 - 5
Calcium carbonate	Not available.	1/0/0	1317-65-3	1 - 5
Calcium hydroxide	Not available.	3/0/0	1305-62-0	1 - 5
Silica, amorphous, fumed	Not available.	Not available.	7631-86-9	1 - 5
Admixtures (organic and inorganic)	Not available.	Not available.	Not available.	0.1 - 1

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

- Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If eye irritation persists: Get medical advice/attention.
- Skin:** If irritation occurs, flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- Inhalation:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- Ingestion:** Not a normal route of exposure. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Skin:** Causes skin irritation. Wear gloves when handling product to avoid drying and mechanical abrasion of the skin. May cause sensitization by skin contact.
- Inhalation:** Dust may cause respiratory tract irritation.
- Ingestion:** Not a normal route of exposure. May result in obstruction and temporary irritation of the digestive tract.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

Note to Physicians: Symptoms may not appear immediately.

SAFETY DATA SHEET

Specific Treatments: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

Flammability: Not flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.

5.2 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Treat for surrounding material.

Unsuitable Extinguishing Media: Not available.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

Products of Combustion: May include, and are not limited to: oxides of carbon.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full firefighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment: Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Vacuum or sweep material and place in a disposal container. Use wet methods, if appropriate, to reduce the generation of dust. Provide ventilation if dust is generated.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Avoid contact with skin and eyes. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. Use wet methods, if appropriate, to reduce the generation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle with care. When using do not eat or drink. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. (See section 10)

SAFETY DATA SHEET

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Coarse aggregate	Not available.	Not available.
Portland cement	15 mg/m ³ (total); 5 mg/m ³ (resp)	1 mg/m ³ (no asbestos and <1% crystalline silica, respirable fraction)
Ashes (residues)	Not available.	Not available.
Slags, ferrous metal, blast furnace	Not available.	Not available.
Water	Not available.	Not available.
Silica, crystalline, quartz	((10 mg/m ³)/(%SiO ₂ +2) (resp)) ((30 mg/m ³)/(%SiO ₂ +2) (total)) ((250)/(%SiO ₂ +5) mppcf (resp))	0.025 mg/m ³
Ferric oxide	10 mg/m ³	5 mg/m ³ (iron oxide fume; dust as Fe)
Calcium carbonate	15 mg/m ³ (total); 5 mg/m ³ (resp)	10 mg/m ³
Calcium hydroxide	15 mg/m ³ (total); 5 mg/m ³ (resp)	5 mg/m ³
Silica, amorphous, fumed	80 mg/m ³ /%SiO ₂	10 mg/m ³
Admixtures (organic and inorganic)	Not available.	Not available.

8.2 EXPOSURE CONTROLS

Engineering Controls: When using product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits. Use wet methods, if appropriate, to reduce the generation of dust.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Safety glasses or goggles are recommended when using product.

Skin Protection:

Hand Protection: Wear suitable gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

General Health and Safety Measures: Handle according to established industrial hygiene and safety practices. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Fully cured and hydrated concrete.

Color: Not available.

Odor: Odorless.

Odor Threshold: Not available.

Physical State: Solid.

SAFETY DATA SHEET

pH:	Not available.
Melting Point/Freezing Point:	Not available.
Initial Boiling Point and Boiling Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability:	Not flammable.
Lower Flammability/Explosive Limit:	Not available.
Upper Flammability/Explosive Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density/Specific Gravity:	Not available.
Solubility:	Insoluble.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal conditions of use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

None known.

10.5 INCOMPATIBLE MATERIALS

None known.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

None known.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, and inhalation.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Skin: Causes skin irritation. Wear gloves when handling product to avoid drying and mechanical abrasion of the skin. May cause sensitization by skin contact.

SAFETY DATA SHEET

Ingestion: Not a normal route of exposure. May result in obstruction and temporary irritation of the digestive tract.

Inhalation: Dust may cause respiratory tract irritation.

Acute Toxicity:

Ingredient	IDLH	LC50	LD50
Coarse aggregate	Not available.	Not available.	Not available.
Portland cement	5000 mg/m ³	Not available.	Not available.
Ashes (residues)	Not available.	Not available.	Oral > 2000 mg/kg, rat
Slags, ferrous metal, blast furnace	Not available.	Not available.	Not available.
Water	Not available.	Inhalation 90000 mg/m ³ /4h, rat	Oral >90000 mg/kg, rat Dermal >90000 mg/kg, rabbit
Silica, crystalline, quartz	Ca [25 mg/m ³ (cristobalite, tridymite); 50 mg/m ³ (quartz, tripoli)]	Not available.	Oral 500 mg/kg, rat
Ferric oxide	2500 mg Fe /m ³	Not available.	Oral >10000 mg/kg, rat
Calcium carbonate	Not available.	Not available.	Oral 6450 mg/kg, rat
Calcium hydroxide	Not available.	Not available.	Oral 7340 mg/kg, rat
Silica, amorphous, fumed	Not available.	Inhalation ≥58.8 mg/l/1h, rat	Oral >5000 mg/kg, rat Dermal >2000 mg/kg, rabbit
Admixtures (organic and inorganic)	Not available.	Not available.	Not available.

Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
> 5 mg/l/4h, rat	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Coarse aggregate	Not listed.
Portland cement	G-A4
Ashes (residues)	Not listed.
Slags, ferrous metal, blast furnace	Not listed.
Water	Not listed.
Silica, crystalline, quartz	G-A2, I-1, N-1, O, CP65
Ferric oxide	G-A4, I-3
Calcium carbonate	Not listed.
Calcium hydroxide	Not listed.
Silica, amorphous, fumed	I-3
Admixtures (organic and inorganic)	Not listed.

* See Section 15 for more information.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

- Skin Corrosion/Irritation:** Causes skin irritation.
- Serious Eye Damage/Irritation:** Causes serious eye irritation.
- Respiratory Sensitization:** Based on available data, the classification criteria are not met.
- Skin Sensitization:** May cause an allergic skin reaction.
- STOT-Single Exposure:** Dust may cause respiratory tract irritation.
- Chronic Health Effects:**
- Carcinogenicity:** Respirable dust may contain crystalline silica, known to cause cancer.
- Germ Cell Mutagenicity:** Based on available data, the classification criteria are not met.

SAFETY DATA SHEET

Reproductive Toxicity:

Developmental: Based on available data, the classification criteria are not met.

Teratogenicity: Based on available data, the classification criteria are not met.

Embryotoxicity: Based on available data, the classification criteria are not met.

Fertility: Based on available data, the classification criteria are not met.

STOT-Repeated Exposure: Causes damage to lungs through prolonged or repeated exposure. Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

Aspiration Hazard: Based on available data, the classification criteria are not met.

Toxicologically Synergistic Materials: Not available.

Other Information: Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: No ecological consideration when used according to directions.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

DOT
Not regulated.

TDG
Not regulated.

NOM-004-SCT2-1994
Not regulated.

14.2 UN PROPER SHIPPING NAME

DOT

TDG

NOM-004-SCT2-1994

SAFETY DATA SHEET

Not applicable.

Not applicable.

Not applicable.

14.3 TRANSPORT HAZARD CLASS (ES)

DOT

TDG

NOM-004-SCT2-1994

Not applicable.

Not applicable.

Not applicable.

14.4 PACKING GROUP

DOT

TDG

NOM-004-SCT2-1994

Not applicable.

Not applicable.

Not applicable.

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Global Inventories:

Ingredient	Canada DSL/NDSL	USA TSCA
Coarse aggregate	Not available.	Not available.
Portland cement	DSL	Yes.
Ashes (residues)	DSL	Yes.
Slags, ferrous metal, blast furnace	DSL	Yes.
Water	DSL	Yes.
Silica, crystalline, quartz	DSL	Yes.
Ferric oxide	DSL	Yes.
Calcium carbonate	NDSL	Yes.
Calcium hydroxide	DSL	Yes.
Silica, amorphous, fumed	DSL	Yes.
Admixtures (organic and inorganic)	Not available.	Not available.

NFPA-National Fire Protection Association:

Health:	2
Fire:	0
Reactivity:	0

HMIS-Hazardous Materials Identification System:

Health:	2*
Fire:	0
Physical Hazard:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 **California Proposition 65**

OSHA (O) **Occupational Safety and Health Administration.**

ACGIH (G) **American Conference of Governmental Industrial Hygienists.**

A1 - Confirmed human carcinogen.

A2 - Suspected human carcinogen.

A3 - Animal carcinogen.

SAFETY DATA SHEET

A4 - Not classifiable as a human carcinogen.
A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: May 2015

Expiry Date: _____

Version: 1.0

Revision Date: _____

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.