



Quartzite (Sandstone)

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 4/6/2017

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Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Sandstone Aggregates, Quartzite
Product code : Not available

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

Use of the substance/mixture : Sandstone aggregate may be used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction materials. Sandstone aggregate may be distributed in bags, totes, and bulk shipments.

1.3. Details of the supplier of the safety data sheet

APAC – Kansas Inc., Shears Division, 1600 N Lorraine, STE 1, Hutchinson, KS 67501

1.4. Emergency telephone number

APAC Mainline (620) 662-3307 Alex Blecha (Emergency) (620) 200-6928

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Carcinogenicity Category 1A
Specific target organ toxicity (repeated exposure) Category 2
Specific target organ toxicity (single exposure) Category 2
May cause respiratory irritation
May cause cancer
Causes damage to organs through prolonged or repeated exposure

This classification is based on the product as sold.

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : May cause cancer. May cause damage to organs (lung) through prolonged or repeated exposure.
Precautionary statements (GHS-US) : **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. **Response** If exposed or concerned: Get medical advice/attention. **Storage** Restrict or control access to stockpile areas. Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains aggregates without an effective procedure for assuring safety. **Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

Hazard(s) not otherwise classified (HNOC) Supplemental information

Respirable Crystalline Silica (RCS) may cause cancer. Sandstone is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, Sandstone is not a known health hazard. Sandstone may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain respirable crystalline silica (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of respirable crystalline silica (quartz) may cause lung cancer according to IARC and NTP; ACGIH states that it is a suspected cause of cancer. Other forms of RCS (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

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2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Quartz	(CAS No) 14808-60-7	88.0 – 92.0	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Aluminum Oxide	(CAS No) 1344-28-1	5.0 – 5.0	
Iron Oxide	(CAS No) 1309-37-1	3.0 – 7.0	

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Sandstone dust: Move to fresh air. Call a physician if symptoms develop or persist
- First-aid measures after skin contact : Sandstone dust: Wash off with soap and water. Get medical attention if irritation develops and persists.
- First-aid measures after eye contact : Sandstone dust: Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Get medical attention if irritation develops or persists.
- First-aid measures after ingestion : Sandstone dust: Rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention. Inhaling dust may cause discomfort in the chest, shortness of breath, and coughing.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Prolonged inhalation may cause chronic health effects. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica liberated from this product can cause silicosis, and may cause cancer.
- Symptoms/injuries after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

4.3. Indication of any immediate medical attention and special treatment needed

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear themselves of dust.

5.1. Extinguishing media

- Suitable extinguishing media : Sandstone is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Use fire-extinguishing media appropriate for surrounding materials. Contact with powerful oxidizing agents may cause fire and/or explosions (see section 10 of SDS).

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Spilled material, where dust is generated, may overexpose cleanup personnel to respirable crystalline silica-containing dust. Do not dry sweep or use compressed air for clean-up. Wetting of spilled material and/or use of respiratory protective equipment may be necessary.

6.2. Methods and material for containment and cleaning up

- For containment : Contain spill, 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 : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

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

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Avoid dust formation or accumulation.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
OSHA	OSHA PEL (TWA) (mg/m ³)	(10 mg/m ³)/(%SiO ₂ +2) TWA (respirable fraction) (30 mg/m ³)/(%SiO ₂ +2) TWA (total dust) (250)/(%SiO ₂ +5) mppcf TWA (respirable fraction)
Aluminum Oxide (1344-28-1)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ TWA as Al
OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ (respirable fraction) 15 mg/m ³ (total dust)
	OSHA VPEL (TWA) (mg/m ³)	5 mg/m ³ (respirable fraction) 10 mg/m ³ (total dust)
Iron Oxide (1309-37-1)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³ TWA as Fe
OSHA	OSHA PEL (TWA) (mg/m ³)	10 mg/m ³
	OSHA VPEL (TWA) (mg/m ³)	10 mg/m ³ TWA as fume

8.2. Exposure controls

Appropriate engineering controls : Good general ventilation (typically 10 air changes per hour indoors) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Hand protection : Wear suitable gloves.

Eye protection : Wear safety glasses with side shields (or goggles).

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Use personal protective equipment as required. When handling or performing work with Sandstone that produces dust or respirable crystalline silica in excess of applicable exposure limits, wear a NIOSH-approved respirator that is properly fitted and is in good condition. Respirators must be used in accordance with all applicable workplace regulations.

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Solid, particles or blocks of granular mixture

Colour : Varies

Odour : None

Odour threshold : No data available

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pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not combustible
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not flammable
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: Insoluble in water
Partition coefficient: n-octanol/water	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information 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 storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents. When heated to extremely high temperatures (>1580 F) quartz gradually turns to cristobalite or tridymite – forms of crystalline silica that are considered more dangerous than quartz.

10.6. Hazardous decomposition products

Silica dissolves in hydrofluoric acid producing a corrosive gas-silicon tetrafluoride.

11.1. Information on toxicological effects

Aluminum oxide (1344-28-1)

LD50 oral rat	5000 - 10000 mg/kg
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Iron oxide (1309-37-1)

LD50 oral rat	> 2000 mg/kg
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Quartz (14808-60-7)

IARC group	1 - Carcinogenic to humans (airborne particles of respirable size)
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens (airborne particles of respirable size)

Reproductive toxicity : Not expected to be a reproductive hazard.

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

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- Specific target organ toxicity (repeated exposure) : Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.
- Aspiration hazard : Not expected to be an aspiration hazard.
- Symptoms/injuries after inhalation : Dust: discomfort in the chest. Shortness of breath. Coughing.
- Symptoms/injuries after skin contact : This product is not expected to be a skin hazard.
- Symptoms/injuries after eye contact : Direct contact with eyes may cause temporary irritation.
- Symptoms/injuries after ingestion : Not likely due to product form. However accidental ingestion may cause discomfort.
- Carcinogenicity : Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

No known effects.

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Do not allow fine particulate matter to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with fine particulates. Dispose of contents in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport.

Additional information

Other information : No supplementary information available.

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

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SECTION 15: Regulatory information

15.1. US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard -No

Delayed Hazard -Yes

Fire Hazard -No

Pressure Hazard -No

Reactivity Hazard -No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Yes chemical SARA 313 (TRI reporting)

Not regulated.

Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

15.2. US State regulations

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Massachusetts RTK -Substance List	Crystalline Silica (Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
New Jersey Worker and Community Right-to-Know Act	Crystalline Silica (Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
Pennsylvania Worker and Community Right-to-Know Law	Crystalline Silica (Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)
Rhode Island RTK	Not regulated.
California Proposition 65	WARNING: This product contains a chemical known to the State of California to cause cancer.

International Inventories Country(s) or region Inventory name On inventory (yes/no)*

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: Other information

Date of issue : 4/6/2017

Other information : None.

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