

Safety Data Sheet

Gabbro Crushed Aggregate Products

Section 1: Product and Company Identification

Product:	Gabbro Crushed Aggregate Products			
Synonyms:	Aggregate, Manufactured Sand, Railroad Ballast, Mineral Filler, Screenings, Rip Rap, Gabbro, Volcanic rock, Igneous			
Rock				
Product Use:	Aggregate is used in the manufacture of Portland Cement Concrete, Asphalt Paving, and other construction			
	applications.			
Manufacturer:	Dolese Bros. Co.			
	8300 N Oklahoma Avenue			
	Oklahoma City, OK 73114			
	Phone: 405-235-2311			
	www.dolese.com			

Section 2: Hazards Identification

Physical Hazards Hazard Classification

OSHA Defined Hazards GHS LABEL ELEMENTS Symbol(s) Not Classified Carcinogenicity: Category 1A Specific Target Organ Toxicity: Category 2 Not Classified



Signal Word	Danger		
Hazard statement	May cause cancer. May cause damage to organs (lungs) through prolonged or repeated exposure.		
Precautionary statement			
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.		
Hazards not otherwise	None Known		
Classified (HNOC)			



Supplemental Information

Respirable Crystalline Silica (RCS) may cause cancer. Gabbro is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, gabbro is not a known health hazard. Gabbro 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.

Section 3: Composition/Information on Ingredients

Ingredient	CAS Number	Percent
Gabbro	None	> 99
Quartz	14808-60-7	< 1.0

Section 4: First Aid Measures

Inhalation Skin contact Eye contact	Gabbro dust: Move to fresh air. Call a physician if symptoms develop or persist. Gabbro dust: Wash off with soap and water. Get medical attention if irritation develops and persists. Gabbro 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).
Ingestion	Get medical attention if irritation develops or persists. Gabbro dust: Rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.
Most important symptoms	Inhaling dust may cause discomfort in the chest, shortness of breath, and coughing. Prolonged inhalation may cause
/effects, acute and delayed	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.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General Information	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.

Section 5: Fire Fighting Measures

Suitable extinguishing media	Non-flammable. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted. Not a combustible dust.
Special protective equipment and precautions for firefighters	Use protective equipment appropriate for surrounding materials.
Firefighting equipment /instructions	No Specific precautions.
Specific methods General fire hazards	Contact with powerful oxidizing agents may cause fire and/or explosions (see section 10 of SDS) No unusual fire or explosion hazards noted.



Section 6: Accidental Release Measures

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Personal precautions and emergency procedures Materials and methods for containment and clean-up Environmental Precautions	Wear appropriate protective equipment and clothing during clean-up of materials that contain or may liberate gabbro dust 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. Do not wash aggregates down sewage and/or drainage systems or into bodies of water (e.g. streams).
Section 7: Handling and Stor	rage
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.

Conditions for safe storage Avoid dust formation or accumulation.

Section 8: Exposure Controls/Personal Protection

Occupational exposure	1. Value equivalent to OSHA formulas (29 CFR 1910.1000; 29 CFR 1917; 29 CFR 1918).		
limits	2. Value also applies to MSHA Metal/Non-Metal (1973 TLVs at 30 CFR 56/57.5001)		
	3. OSHA enforces 0.250 mg/m ³ in construction and shipyards (CPL-03-00-007).		
	4. Value also applies to OSHA construction (29 CFR 1926.55 Appendix A) and shipyards (29 CFR 1915.1000 Table Z).		
	5. MSHA limit = 10 mg/m ³ .		

U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	Form
Particulates not otherwise classified	PEL	5 mg/m³	Respirable fraction
(CAS SEQ250)		15 mg/m³	Total dust (4)
U.S. OSHA Table Z-3 (29 CFR 1910.1000)			
Components	Туре	Value	Form
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m ³ 0.1 mg/m ³	Total dust (1,2) Respirable (1,2,3)
Tridymite and Cristobalite (other forms of crystalline	TWA	0.15 mg/m³	Total dust (1)
silica) (CAS Mixture)		0.05 mg/m ³	Respirable (1,2)
Particulates not otherwise classified	TWA	5 mg/m³	Respirable fraction (1)
(CAS SEQ250)		15 mg/m ³	Total dust (1,4,5)
U.S. ACGIH Threshold Limit Values®			
Components	Туре	Value	Form
Crystalline Silica (all forms; CAS mixture)	TWA	0.025 mg/m ³	Respirable fraction
Particulates not otherwise classified	TWA	3 mg/m³	Respirable particles (2)
(CAS SEQ 250)		10 mg/m³	Inhalable particles (2)



U.S. NIOSH: Pocket Guide to Chemical Hazards

Components		Туре	Value	Form
Crystalline Silica (all forms;	CAS mixture)	TWA	0.05 mg/m³	Respirable dust
Biological limit values	No biological exposure lin	mits noted for the ingredie	nt(s).	
Exposure guidelines	OSHA PELs, MSHA PELs, and ACGIH TLVs are 8-hr TWA values. NIOSH RELs are for TWA exposures up to 10- hr./day and 40-hr/wk. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including "Particulates Not Otherwise Classified," "Particulates Not Otherwise Regulated," "Particulates Not Otherwise Specified," and "Inert or Nuisance Dust" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.			
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.			
Individual protection meas	ures, such as personal pr	otective equipment		
Eye/face protection	Wear safety glasses with	side shields (or goggles).		
Skin protection Hand protection Other Rrespiratory protection	applicable exposure limit	equipment as required. ming work with Gabbro th s, wear a NIOSH-approved		ole crystalline silica in excess of fitted and is in good condition.
Thermal hazards General hygiene considerations	Not anticipated. Wear ap Always observe good per	propriate thermal protecti sonal hygiene measures, s	ve clothing, when necessar	y. ng the material and before

Section 9: Physical and Chemical Properties

Appearance		Vapor Pressure	Not applicable
Physical state	Solid	Vapor Density	Not applicable
Form	Solid particles	Relative Density	2.78 – 2.82
Color	Black to grey	Solubility(ies)	
Odor	Not applicable	Solubility (water)	Insoluble
Odor threshold	Not applicable	Partition coefficient	Not applicable
рН	8.5 - 9.0	(n- octanol/water)	
Melting point/freezing point	Not applicable	Auto-ignition temperature	Not applicable
Initial boiling point and boiling range	Not applicable	Decomposition temperature	Not applicable
Flash point	Non combustible	Viscosity	Not applicable
Evaporation rate	Not applicable	Other information	
Upper/Lower flammability or explosive limit	ts	Explosive properties	Not applicable
Flammability limit – lower (%)	Not applicable	Flammability	Not applicable
Flammability limit – Upper (%)	Not applicable		



Section 10: Chemical Stability and Reactivity Information

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

Section 11: Toxicological Information

Information on likely routes of exposure

Inhalation	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.			
Skin contact	Gabbro dust: May cause irr	Gabbro dust: May cause irritation through mechanical abrasion.		
Eye contact	Gabbro dust: May cause irr	itation through mechanical abrasion.		
Ingestion	Not likely, due to the form discomfort.	of the product. However, accidental ingestion of the content may cause		
Symptoms related to the physical, chemical and toxicological characteristics	Gabbro dust: Discomfort i	n the chest. Shortness of breath. Coughing.		
Information on toxicologic				
Acute toxicity	Not expected to be acutely toxic.			
	n This product is not expecte			
Serious eye damage/ey irritation	e Direct contact with eyes m	ay cause temporary irritation.		
Respiratory or skin sensiti	zation			
Respiratory sensitization	No respiratory sensitizing a	ffects known.		
Skin sensitization	Not known to be a dermal	irritant or sensitizer.		
Germ cell mutagenicity	No data available to indicat genotoxic.	e product or any components present at greater than 0.1% are mutagenic or		
Carcinogenicity		has been classified by IARC and NTP as a known human carcinogen, and spected human carcinogen.		
IARC Monographs. Overal	l Evaluation of Carcinogenic	ity		
Crystalline Silica (Quartz) (CAS 14808-60-7)	1 Carcinogenic to humans.		
Respirable Tridym	nite and Cristobalite	1 Carcinogenic to humans.		
(other forms of C	rystalline) (CAS Mixture)			
NTP Report on Carcinoger	IS			
, ,	Quartz) (CAS 14808-60-7) ed Substances (29 CFR 1910	Known To Be Human Carcinogen. . 1001-1050)		
Not listed.	-			



Reproductive toxicity	Not expected to be a reproductive hazard.		
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity –repeated exposure	Respirable crystalline silica: May cause damage to organs (lung) through prolonged or repeated exposure.		
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard.		
Chronic effects	Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects.		

Section 12: Ecological Information

Ecotoxicity	Not expected to be harmful to aquatic organisms. Discharging Gabbro dust and fines into waters may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.
Persistence and	Not applicable.
degradability	
Bioaccumulative potential	Not applicable.
Mobility in soil	Not applicable.
Other adverse effects	No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

Section 13: Disposal Considerations

Disposal instructions	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.
Hazardous waste code	Not regulated.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty packaging materials should be recycled or disposed of in accordance with applicable regulations and practices.

Section 14: Transportation Information

This product is not classified as a Hazardous Material under U.S. DOT regulations.



Section 15: Regulatory Information

US federal regulations	This product is a "Hazardous Chemical" as defined by the 1910.1200.	ne OSHA Hazard Communication Standard, 29 CFR		
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 chemical		Yes		
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) Sectio	n 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated		
Safe Drinking Water Act (SDWA)		Not regulated		
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

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