Gunite7424 (Shotcrete) SAFETY DATA SHEET

1. <u>IDENTIFICATION</u>

Product Identifier: Recommended Use: Use Restrictions: Company: Address: Phone: Gunite 74241

Dry Mix Shotcrete For industrial use only US Concrete Products 16 Greenmeadow Drive #111 Timonium, MD 21093 1-866-827-8727 www.uscproducts.com 1-800-424-9300

2. <u>HAZARD IDENTIFICATION</u>

Website:

Emergency:



Physical Hazards: Health Hazards: Environmental Hazards:	Not Classified Skin Corrosion/Irritation Serious Eye Damage/Irritation Sensitization, Skin Carcinogenicity STOT, Repeated Exposure Not Classified.	Category 2 Category 1 Category 1 Category 1A Category 2 (Lung)
Signal Word:	DANGER!	
Hazard Statements:	Causes skin irritation. Causes serious eye d May cause cancer. Causes damage to organ exposure.	lamage. May cause an allergic skin reaction. ns (lungs) through prolonged or repeated
Precautionary Statements:	enpoon en	
Prevention:	protection. Do not breathe dust, fumes, or v	gloves/protective clothing/eye protection/face vapors. Use only outdoors or in a well- e when using this product. Wash thoroughly
Response:	If on skin: Wash with plenty of water. If sk advice/attention. If in eyes: Rinse cautiousl contact lenses, if present and easy to do. Co medical advice/attention. If inhaled: Remo position comfortable for breathing. Call a p	ly with water for several minutes. Remove ontinue rinsing. If eye irritation persists: Get ove victim to fresh air and keep at rest in a
Storage:	Store locked up. Store in a well-ventilated	
Disposal:	Dispose of contents/container in accordanc regulations.	e with local/regional/national/international

Hazards not otherwise Classified (HNOC): Can form explosive air-dust mixtures, avoid creating dust.

3. <u>COMPOSITION INFORMATION</u>

Chemical Name	CAS Number	Weight %
Crystalline Silica, Quartz	14808-60-7	60-70
Portland Cements	65997-15-1	30-40
Silica Fume	69012-64-2	< 2

Composition Note: This product is a mixture. Hazardous ingredients are listed above. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

SAFETY DATA SHEET

4.

5.

6.

Eye Contact:	Immediately flush eyes with plenty of cool water for at least 15 minutes while holding
·	the eyes open. Remove contact lenses if present and easy to do. If you experience
	redness, burning, blurred vision, or swelling consult a physician immediately.
Skin Contact:	Remove contaminated clothing and product, immediately wash affected area with soap and water. Do not apply greases or ointments. If rash or irritation occurs consult a
	physician.
Ingestion:	Rinse mouth immediately. Do not induce vomiting. Consult a physician.
Inhalation:	Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient
	continues to experience difficulty breathing, consult a physician .
Most Important Symptoms:	Irritant effects. Symptoms include itching, burning, redness and tearing. Permanent eye damage, including blindness could result. Discomfort in the chest, shortness of breath,
	coughing.
General Information:	Provide general supportive measures and treat symptomatically. Symptoms may be
	delayed. Ensure that medical personnel are aware of the material(s) involved, and take
	precautions to protect themselves. If exposed or concerned: Get medical advice/attention.
	Wash contaminated clothing before reuse.
FIRE-FIGHTING MEASURES	$\underline{\mathbf{S}}$
Suitable Extinguishing Media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Additional Information:	Can form explosive air-dust mixtures, avoid creating dust.
	During a fire, gases hazardous to health may be formed.
Fire-Fighting Procedures:	Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing
	apparatus and full protective clothing must be worn. Move containers from fire area if
	you can do so without risk. Cool containers with flooding quantities of water until well
	after fire is out. Prevent runoff from fire control or dilution from entering streams,
	sewers, or drinking water supply.
ACCIDENTAL RELEASE ME	ASURES
Personal Precautions:	Keep unnecessary personnel away. Avoid generating dust. Wear appropriate personal
	protective equipment. Do not touch damaged containers or spilled material unless

	protective equipment. Do not touch damaged containers of spined material unless
	wearing appropriate protective clothing. Avoid inhalation of dust. Ensure adequate
	ventilation. If the concentration of dust exceeds the permissible exposure limit wear a
	respirator.
Clean-up Methods:	Avoid dry sweeping. Do not use compressed air to clean spilled silica sand. Use water
	spraying/flushing or ventilated or HEPA filtered vacuum cleaning system. Dispose of in

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so.

closed containers.

Environmental Precautions:

7. HANDLING AND STORAGE

Handling: Avoid generating dust. Mechanical ventilation or local exhaust ventilation is recommended. Use all available work practices to control dust exposure, such as water sprays. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Avoid contact with eyes, skin, and clothing. Do not breathe dust. Wear a respirator if dust concentrations exceed permissible exposure limits. Do not permit dust to collect and build up on work surfaces, use good housekeeping. Avoid contact with unhardened cement products. Observe good industrial hygiene practices. Use dust collection to trap dust produced during loading and unloading. Store in a closed Storage: container away from incompatible materials (See Section 10 of the SDS). Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Protect against physical damage.

8. <u>EXPOSURE CONTROLS/PERSONAL PROTECTION</u>

Protective Measure:	Wear appropriate personal protective equipment.
Eye Protection:	Wear chemical splash goggles or safety glasses with side shield.
Hand Protection:	Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.
Skin and Body Protection:	Wear long sleeve shirt/long pants and other clothing as required to minimize contact. In case of dust production, dust-proof clothing. Avoid contact with unhardened cement products, if contact occurs wash immediately with soap and water.
Respirator Protection:	Use a NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.
General Hygiene:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Engineering Controls:	Mechanical ventilation or local exhaust ventilation is recommended. Good general ventilation (typically 10 air changes per hour) 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. Provide eyewash station and emergency shower.

Exposure Limits:

Component	Component OSHA (PEL)		NIOSH Pocket Guide	
Quartz (CAS 14808-60-7)	$\frac{10}{\% SiO_2 + 2} \frac{mg}{m^3} / m^3$ (respirable)	0.025 mg/m ³ (respirable)	0.05 mg/m ³ (respirable)	
Portland Cements (CAS 65997-15-1)	5 mg/m ³ (Respirable) 15 mg/m ³ (Total dust)	1 mg/m ³ (respirable)	5 mg/m ³ (Respirable) 15 mg/m ³ (Total dust)	
Silica Fume (CAS 69012-64-2)	0.8mg/m ³	N/E	6mg/m ³	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	Freezing/Melting Point:	N/A
Form:	Powder	Boiling Point:	N/A
Color:	Gray	Flash Point:	N/A
Odor:	Characteristic	Evaporation Rate:	N/A
Odor Threshold:	N/A	Specific Gravity:	2.7
pH:	N/A	VOC:	0 g/L
Flammability:	N/A	U/L Flammability:	N/A
Vapor Pressure:	N/A	Vapor Density:	N/A
Solubility:	Slight	Kow:	N/A
Decomposition:	N/Ă	Viscosity:	N/A

10. STABILITY AND REACTIVITY

Reactivity:	Stable and non-reactive under normal conditions of use and storage.
Chemical Stability:	Stable and non-reactive under normal conditions of use and storage.
Condition to Avoid:	Conditions which generate dust. Avoid unintentional contact with water.
Substances to Avoid:	Strong oxidizers. Strong acids and bases. Ammonium salts. Aluminum metal.
Hazardous Reactions:	The product is stable if stored and handled as prescribed/indicated. Strong bases are
	formed on the addition of water.
Decomposition Products:	Carbon dioxide, carbon monoxide, oxides of nitrogen, other organic compounds.

11. **TOXILOGICAL INFORMATION**

Information on likely routes of exp	osure:		
Ingestion:	Expected to be a low ingestion hazard.		
Inhalation:	Irritation to nose and respiratory tract.		
Skin contact:	Causes skin irritation. May cause sensitization by skin contact.		
Eye contact:	Causes serious eye damage. Particles can cause corneal abrasion.		
Information on toxicological effects	s:		
Acute toxicity:	Occupational exposure to the substance or mixture may cause adverse effects.		
Skin corrosion/irritation:	Causes skin irritation.		
Eye damage/eye irritation:	Causes serious eye damage.		
Respiratory sensitization:	Not a respiratory sensitizer.		
Skin sensitization:	May cause sensitization by skin contact.		
Germ cell mutagenicity:	No data available.		
Carcinogenicity:	May cause cancer.		
	IARC Monographs. Overall Evaluation of Carcinogenicity		
	Quartz (CAS 14808-60-7) 1 Carcinogenic to humans.		
	NTP Report on Carcinogens		
	Quartz (CAS 14808-60-7) Known To Be Human Carcinogen		
Reproductive toxicity:	No data available.		
Aspiration hazard:	No data available.		
Specific target organ toxicity:			
Single exposure	No data available.		
Repeated exposure	Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).		
	Repeated or prolonged exposure to Respirable silica dust will cause lung damage in the		
	form of silicosis. Symptoms include progressively more difficult breathing, cough,		
	fever, and weight loss. Acute silicosis can be fatal.		
Further information:	Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.		
ECOLOGICAL INFORMATION	<u>N</u>		
Ecotoxicity: Persistence and degradability:	This material is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment Not readily biodegradable.		
Bioaccumulative potential:	Not expected to bioaccumulate.		
Mobility in soil:	No data available.		
Other adverse effects:	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone		
	creation potential, endocrine disruption, global warming potential) are expected from		
DIGDOGAL CONCIDEDATION	this product.		
DISPOSAL CONSIDERATIONS	-		
Waste Disposal of Substance:	Do not allow material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Container Disposal:	Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waster handling site for recycling or disposal.		
Disposal of Cured Product:	Grind or chip off surface. Solid material does not require special disposal considerations		

12.

13.

Gunite7424 (Shotcrete)

SAFETY DATA SHEET

14. TRANSPORTATION INFORMATION

United States Department

Of Transportation (USDOT): Not regulated as a hazardous material by DOT.

International Air Transportation

Association (IATA): Not regulated as a dangerous good.

International Maritime

Dangerous Goods Code (IMDG): Not regulated as a dangerous good.

Special precautions for user:Read safety instructions, SDS and emergency procedures before handling.Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:Not applicable.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. <u>REGULATORY INFORMATION</u>

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): US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): CERCLA Hazardous Substance List (40 CFR 302.4):

Not regulated. Not listed. Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories:					
Immediate	Delayed	Fire	Pressure	Reactivity	
Yes	Yes	No	No	No	

SARA 302 Extremely hazardous substance: SARA 311/312 Hazardous chemical: SARA 313 (TRI reporting): No Yes Not regulated.

US State Right-To-Know Lists

Chemical	Massachusetts RTK	New Jersey Work and Community RTK Act	Pennsylvania Worker and Community RTK Law	Rhode Island RTK
Portland Cement (65997-15-1)	Listed	Listed	Listed	
Silica Fume (CAS69012-64-2)	Listed		Listed	
Quartz (14808-60-7)	Listed	Listed	Listed	

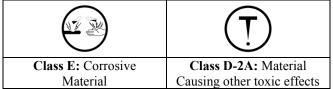
US. California Proposition 65: WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or reproductive harm.

Component	Regulation	% In Blend (approx.)	Remark
Quartz (14808-60-7)	ACGIH	60-75	Carcinogenic
Formaldehyde (50-00-0)	ACGIH	Trace	Carcinogenic
Titanium Dioxide (13463-67-7)	ACGIH	Trace	Carcinogenic

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

Gunite7424 (Shotcrete) SAFETY DATA SHEET

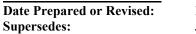
WHMIS Hazard Classification



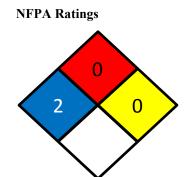
International Inventories

Country or Region	Inventory	On Inventory? (Yes/No)
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

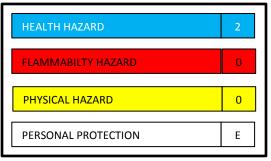
16. OTHER INFORMATION



December 2014 July 2013



HMIS Rating



Legend

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
CPR:	Controlled Product Regulations (Canada)
DOT:	Department of Transportation (U.S.)
EPA:	Environmental Protection Agency (U.S.)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HEPA:	High-Efficiency Particulate Air

Gunite7424 (Shotcrete)

SAFETY DATA SHEET

HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
LPP:	Limité Permisible Ponderado (Chile)
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
OSHA:	Occupational Safety and Health Administration (U.S.)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
SDS:	Safety Data Sheet
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
U.S.:	United States
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Safety Data Sheet (SDS) is prepared in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.