SAFETY DATA SHEET



CARBOLITE

Section 1. Identification						
GHS product identifier	: CARBOLITE					
Product category(ies)	: Oil and gas.					
Other means of identification	: Ceramic Proppant; Semi-Crystalline Alumina Silicate; Sintered Kaolinite.					
Product type	: Solid.					
Relevant identified uses of the s	ubstance or mixture and uses advised against					
Proppant for oil and natural gas	well hydraulic fracturing.					
Supplier's details	: CARBO Ceramics Inc.					
	5050 Westway Park Blvd, Suite 150					
	Houston, Texas 77041, USA					
	1-800-551-3247					
Emergency telephone number	: For Chemical Emergency					
(with hours of operation)	Spill, Leak, Fire, Exposure, or Accident					
	Call CHEMTREC Day or Night					
	Within USA and Canada: 1-800-424-9300					
Section 2. Hazards identific						
OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard					
	(29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and					
	proper use of the product. This SDS should be retained and available for employees and other users of this product					
	users of this product.					
Classification of the substance or mixture	: Not classified.					
or mixture						
GHS label elements						
Signal word	: No signal word.					
Hazard statements	: No known significant effects or critical hazards.					
Precautionary statements						
Prevention	: Not applicable.					
Response	: Not applicable.					
Storage	: Not applicable.					
Disposal	: Not applicable.					
Hazards not otherwise	: None known.					
classified						
Section 3. Composition/inf	ormation on ingredients					
Substance/mixture	: Article.					
CAS number/other identifiers						
Ingredient name	% CAS number					
Ceramic materials and wares, ch	nemicals 95 - 100 66402-68-4					
Any concentration shown as a ra	nge is to protect confidentiality or is due to batch variation.					

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures				
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.			
Inhalation	 Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 			
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.			
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.			

Most important symptoms/effects, acute and delayed

Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/sympton	<u>ns</u>
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Indication of immediate medic	al attention and special treatment needed, if necessary
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities
	have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures				
Extinguishing media Suitable extinguishing media Unsuitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.None known.			
Specific hazards arising from the chemical Hazardous thermal decomposition products	 No specific fire or explosion hazard. Decomposition products may include the following materials: metal oxide/oxides 			
Special protective actions for fire-fighters Special protective equipment for fire-fighters	 Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. 			
Section 6. Accidental release measures				
	e equipment and emergency procedures . No action shall be taken involving any personal risk or without suitable training. Evacuate			

surrounding areas. Keep unnecessary and unprotected personnel		No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

CARBOLITE	
Section 6. Accidental relea	se measures
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for con	tainment and cleaning up
Small spill	: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and st	orage
Precautions for safe handling	
Protective measures	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

	Ingredient name		Exposure limits		
	Ceramic materials and wares, c	hemicals	None.		
C	ppropriate engineering ontrols nvironmental exposure	 Good general ventilation should be s contaminants. Emissions from ventilation or work p 			
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.				islation. In some cases, fume	
lr	ndividual protection measures				
	Hygiene measures	 Wash hands, forearms and face thore smoking and using the lavatory and a should be used to remove potentially before reusing. Ensure that eyewash location. 	the end of the working p contaminated clothing.	period. Appropriate techniques Wash contaminated clothing	
	Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessm indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If cor is possible, the following protection should be worn, unless the assessment indicates a hig degree of protection: safety glasses with side-shields.				
	Skin protection				
	Hand protection	: Chemical-resistant, impervious glove all times when handling chemical pro			
	Body protection	 Personal protective equipment for th performed and the risks involved and product. 	-	-	

CARBOLITE	
Section 8. Exposure control	s/personal protection
Other skin protection Respiratory protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection
	program to ensure proper fitting, training, and other important aspects of use.
Section 9. Physical and cher	mical properties
<u>Appearance</u>	
Physical state	: Solid. [Solid spheres.]
Color	: Light gray to light tan.
Odor	: Odorless.
Odor threshold	: Not applicable.
pH Molting point	: Not applicable. : 2204.5°C (4000.1°F)
Melting point Boiling point	: 2204.5 C (4000.1 F) : Not available.
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive	: Not applicable.
(flammable) limits	
Vapor pressure	: Not available.
Vapor density	: Not applicable.
Relative density	: 2.6
Solubility	: Not available.
Solubility in water	: Not applicable.
Partition coefficient: n-octanol/	: Not applicable.
water	
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Flow time (ISO 2431)	: Not available.
Section 10. Stability and rea	activity
Reactivity	: Not considered to be reactive.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Strong oxidizer
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Section 11. Toxicological in	
Information on toxicological effe	
<u>Acute toxicity</u> Not available.	
Irritation/Corrosion	
Not available.	
Sensitization	
Not available.	
Mutagenicity	
Not available.	
Carcinogenicity	
Not available.	
Data of issue (Data of rovision	- 2/14/2024 Data of province incurs

CARBOLITE					
Section 11. Toxicological information					
Classification					
Product/ingredient name	OSHA	IARC	NTP		
Ceramic materials and wares, chemicals	-	3	-		
Reproductive toxicity					
Not available.					
Teratogenicity					
Not available.					
Specific target organ toxicity (si	ngle exposu	<u>re)</u>			
Not available.					
Specific target organ toxicity (re	peated expo	osure)			
Not available.					
Aspiration hazard					
Not available.					
Information on the likely routes of exposure	: Not avai	lable.			
Potential acute health effects					
	. No know	un cignifican	at officets or critical bazards		
Eye contact Inhalation		: No known significant effects or critical hazards.			
		 No known significant effects or critical hazards. No known significant effects or critical hazards. 			
Skin contact		-			
Ingestion	: NO KHOV	vn significan	it effects or critical hazards.		
Symptoms related to the physica	l, chemical a	nd toxicolo	gical characteristics		
Eye contact	: No spec	ific data.			
Inhalation	: No spec	ific data.			
Skin contact	: No spec	ific data.			
Ingestion	: No spec	ific data.			
Delayed and immediate effects a	nd also chro	nic effects f	from short and long term exposure		
<u>Short term exposure</u>					
Potential immediate effects	: Not avai	lable.			
Potential delayed effects	: Not avai	lable.			
Long term exposure					
Potential immediate effects	: Not avai	lable.			
Potential delayed effects	: Not avai	lable.			
Potential chronic health effects					
Not available.					
General	: No knov	vn significan	it effects or critical hazards.		
Carcinogenicity	: No knov	vn significan	t effects or critical hazards.		
Mutagenicity		-	t effects or critical hazards.		
Teratogenicity	: No knov	vn significan	t effects or critical hazards.		
Developmental effects		-	it effects or critical hazards.		
Fertility effects		-	t effects or critical hazards.		
Numerical States					
Numerical measures of toxicity					

Acute toxicity estimates

N/A

CARBOLITE

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information						
	DOT Classification	TDG Classification	Mexico Classification	IMDG	ΙΑΤΑ	
UN number	Not available.	Not available.	Not available.	Not available.	Not available.	
UN proper shipping name	Not available.	Not available.	Not available.	Not available.	Not available.	
Transport hazard class(es)	Not available.	Not available.	Not available.	Not available.	Not available.	
Packing group	-	-	-	-	-	
Environmental hazards	No.	No.	No.	No.	No.	

Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to : Not available. IMO instruments

CARBOLITE	
Section 15. Regulatory infor	mation
U.S. Federal regulations	: TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	: Not listed
Clean Air Act Section 602 Class I Substances	: Not listed
Clean Air Act Section 602 Class II Substances	: Not listed
DEA List I Chemicals (Precursor Chemicals)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Not listed
<u>SARA 302/304</u>	
Composition/information on i	ngredients
No products were found.	
SARA 304 RQ	: Not applicable.
SARA 311/312	
	: Not applicable.
<u>Composition/information on i</u> No products were found.	ngreaients
State regulations	
Massachusetts	: None of the components are listed.
New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: None of the components are listed.
California Prop. 65	uire a Safa Harbar warning under California Dran. 65
	uire a Safe Harbor warning under California Prop. 65.
International regulations	ict Schodulas I. II. & III. Chamicals
Chemical Weapon Convention L Not listed.	ist Schedules I, II & III Chemicals
Montreal Protocol	
Not listed.	
Stockholm Convention on Persi	stent Organic Pollutants
Not listed.	
Rotterdam Convention on Prior	Informed Consent (PIC)
Not listed.	
UNECE Aarhus Protocol on POP	s and Heavy Metals
Not listed.	
Inventory list	
Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): All components are listed or exempted.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: All components are listed or exempted.
United States	: Not determined.
Viet Nam	: Not determined.

CARBOLITE

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS[®] ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS[®] ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS[®] ratings are to be used with a fully implemented HMIS[®] program. HMIS[®] is a registered trademark and service mark of the American Coatings Association, Inc. The customer is responsible for determining the PPE code for this material. For more information on HMIS[®] Personal Protective Equipment (PPE) codes, consult the HMIS[®] Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
Not classified.	

History	
Date of printing	: 2/14/2024
Date of issue/Date of revision	: 2/14/2024
Date of previous issue	: 8/18/2023
Version	: 3
Key to abbreviations	: ATE = Acute Toxicity Estimate
-	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IBC = Intermediate Bulk Container
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as
	modified by the Protocol of 1978. ("Marpol" = marine pollution)
	N/A = Not available
	SGG = Segregation Group
	UN = United Nations
References	: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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