

SAFETY DATA SHEET

CARBOGRIND NANO

Section 1. Identification					
GHS product identifier	: CARBOGRIND NANO				
Product category(ies)	: Grinding.				
Other means of identification	: Ceramic Grinding Media; Semi-Crystalline Alumina Silicate; Sintered Alumina.				
Product type	Solid.				
Relevant identified uses of the s	ubstance or mixture and uses advised against				
Grinding media.					
Supplier's details	: CARBO Ceramics Inc. 575 N. Dairy Ashford Road, Suite 300 Houston, Texas 77079, 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	ation				
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.				
Classification of the substance or mixture	: Not classified.				
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 classified	: None known.				
Section 3. Composition/infe	ormation on ingredients				
Substance/mixture	: Article.				
CAS number/other identifiers					

Ceramic materials and wares, chemicals95 - 100Any concentration shown as a range 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.

Ingredient name

%

CAS number

66402-68-4

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/symptoms		
Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Indication of immediate medical 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			
Personal precautions, protective equipment and emergency procedures			

For non-emergency personnel	: No action shall be taken involving any personal risk of 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".

CARBOGRIND NANO			
Section 6. Accidental release	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 cont	ainment 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 sto	prage		
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.		
Appropriate engineering controls	: Good general ventilation should be contaminants.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.		
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.			
Individual protection measures				
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.			
Eye/face protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.			
Skin protection				
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.			
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.			

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Section 8. Exposure controls	s/personal protection				
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based o the task being performed and the risks involved and should be approved by a specialist before handling this product.				
Respiratory protection	 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	nical properties				
Appearance					
Physical state	: Solid. [Solid spheres.]				
Color	: Light gray to light tan.				
Odor	: Odorless.				
Odor threshold	: Not applicable.				
он	Not applicable.				
Melting point	: 2204.5°C (4000.1°F)				
Boiling point	: Not available.				
lash point	: Not available.				
Evaporation rate	: Not available.				
lammability (solid, gas)	: Not available.				
ower and upper explosive flammable) limits	: Not available.				
/apor pressure	: Not available.				
/apor density	: Not available.				
Relative density	: ≥3.7				
Solubility	: Not available.				
Solubility in water	: Not applicable.				
Partition coefficient: n-octanol/ water	: Not available.				
Auto-ignition temperature	: Not available.				
Decomposition temperature	: Not available.				
/iscosity	: Not available.				
Flow time (ISO 2431)	: Not available.				
Section 10. Stability and rea	ictivity				
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.				
ncompatible materials	: Strong oxidizer				
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.				
Section 11. Toxicological inf	ormation				
nformation on toxicological effe	<u>cts</u>				
Acute toxicity Not available.					
Irritation/Corrosion					
Not available.					
Sensitization					
Not available.					
Mutagenicity					
NU 1 1 1 1					

Not available. <u>Carcinogenicity</u> Not available.

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Section 11. Toxicological info	ormation			
Classification				
Product/ingredient name	OSHA	IARC	NTP	
Ceramic materials and wares, chemicals	-	3	-	
Reproductive toxicity	•	•		
Not available.				
Teratogenicity				
Not available.				
Specific target organ toxicity (sir	igle exposur	<u>e)</u>		
Not available.				
Specific target organ toxicity (re	peated expo	<u>sure)</u>		
Not available.				
Aspiration hazard				
Not available.				
Information on the likely routes	: Not avail	able.		
of exposure				
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	tion : No known significant effects or critical hazards.			
Symptoms related to the physical	, chemical a	nd toxicolo	pgical characteristics	
Eye contact	: No speci	fic data.		
Inhalation	: No speci	fic data.		
Skin contact	: No speci	fic data.		
Ingestion	: No specific data.			
Delayed and immediate effects and	nd also chroi	nic effects f	from short and long term exposure	
Short term exposure				
Potential immediate effects	: Not avail	able.		
Potential delayed effects	: Not avail	able.		
Long term exposure				
Potential immediate effects	: Not avail			
Potential delayed effects	: Not avail	able.		
Potential chronic health effects				
Not available.				
General		-	nt effects or critical hazards.	
Carcinogenicity		•	nt effects or critical hazards.	
Mutagenicity			nt effects or critical hazards.	
Teratogenicity		-	nt effects or critical hazards.	
Developmental effects		-	nt effects or critical hazards.	
Fertility effects	: No know	n significan	nt effects or critical hazards.	
Numerical measures of toxicity				
Acute toxicity estimates				

Acute toxicity estimates

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. Annex II of MARPOL and the IBC Code

Date of issue/Date of revision

CARBOGRIND NANO					
Section 15. Regulatory information					
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 in No products were found.					
SARA 304 RQ	: Not applicable.				
SARA 311/312					
Classification	: Not applicable.				
Composition/information on i	ingreaients				
No products were found. 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 Safe Harbor warning under California Prop. 65.				
International regulations					
	List Schedules I, II & III Chemicals				
Not listed.					
Montreal Protocol					
Not listed.					
Stockholm Convention on Persi	stent Organic Pollutants				
Not listed.					
Rotterdam Convention on Prior	r 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	: All components are listed or exempted.				
Japan	: Japan inventory (ENCS): 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	: All components are listed or exempted.				
Viet Nam	: Not determined.				

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.)



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Procedure used to derive the classification

	Justification			
Not classified.				
<u>History</u>				
Date of printing	: 10/22/2019			
Date of issue/Date of revision	: 10/22/2019			
Date of previous issue	: 10/14/2019			
Version	: 2			
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 = Internediate 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.

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