SAFETY DATA SHEET



ACCUCAST ID

SECTION 1: Identification o	of the substance/mixture and of the company/undertaking
1.1 Product identifier	
Product name	: ACCUCAST ID
EC number	: Not available.
CAS number	: Not available.
Product category(ies)	: Casting and foundry.
Product description	: Not available.
Product type	: Solid.
Other means of identification	: Ceramic Casting Media; Semi-Crystalline Alumina Silicate; Sintered Bauxite.
1.2 Relevant identified uses (of the substance or mixture and uses advised against
Casting media for cores, molds a	
1.3 Details of the supplier of	the safety data sheet
Supplier	
CARBO Ceramics Inc.	
575 N. Dairy Ashford Road, Suite	e 300
Houston, Texas 77079, USA	
E-mail address of person	: productstewardship@carboceramics.com
responsible for this SDS	
1.4 Emergency telephone nu	mber
Supplier information	: For Chemical Emergency
(with hours of operation)	Spill, Leak, Fire, Exposure, or Accident
	Call CHEMTREC Day or Night
	+1 202-366-4488 (outside the USA)
SECTION 2: Hazards identif	fication
2.1 Classification of the subs	tance or mixture
Product definition	: Mono-constituent substance
Classification according to Regu	lation (EC) No. 1272/2008 [CLP/GHS]
Not classified.	
The product is not classified as h	nazardous according to Regulation (EC) 1272/2008 as amended.
See Section 11 for more detailed	d information on health effects and symptoms.
2.2 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.
Hazardous ingredients	: ACCUCAST ID
	Ceramic materials and wares, chemicals
Supplemental label elements	Not applicable

Supplemental label elements : Not applicable.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

SECTION 2: Hazards identific	at	ion
Annex XVII - Restrictions on the	:	Not applicable.
manufacture, placing on the		
market and use of certain		
dangerous substances, mixtures		
and articles		
Special packaging requirements		
Containers to be fitted with	:	Not applicable.
child-resistant fastenings		
Tactile warning of danger	:	Not applicable.

2.3 Other hazards								
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: F	РВТ	Ρ	В	т	vPvB	vP	vB
	a	Not applicable Inorganie		N/A	N/A	Not applicab (Inorgan		N/A
Other hazards which do not	: N	None kno	wn.					

result in classification

SECTION 3: Composition/information on ingredients

3.1 Substances

Substances

: Mono-constituent substance

3.2 Mixtures						
Mixtures	: Mono-constituent substance					
Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Туре		
Ceramic materials and wares, chemicals	EC: 266-340-9 CAS: 66402-68-4	95 - 100	Not classified.	[A]		

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Туре

[A] Constituent

[B] Impurity

[C] Stabilizing additive

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures				
4.1 Description of first aid	measures			
Substances	: Mono-constituent substance			
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.			
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.			

4.2 Most important symp	toms and effects, bo	oth acute and delayed		
<u>Over-exposure signs/sympto</u> Eye contact	oms : No specific da	ata.		
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ACCUCAST ID	No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EO) 2015/850
SECTION 4: First aid measur	05
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
4.3 Indication of any immedia	te medical attention and special treatment needed
Notes to physician	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities
	have been ingested or inhaled.
Specific treatments	: No specific treatment.
SECTION 5: Firefighting mea	sures
5.1 Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
5.2 Special hazards arising fro	
Hazards from the substance or mixture	: No specific fire or explosion hazard.
Hazardous combustion products	: Decomposition products may include the following materials:
	metal oxide/oxides
5.3 Advice for firefighters	
Special protective actions for	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there
fire-fighters	is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment	: Fire-fighters should wear appropriate protective equipment and self-contained breathing
for fire-fighters	apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European
	standard EN 469 will provide a basic level of protection for chemical incidents.
SECTION 6: Accidental relea	
	tective equipment and emergency procedures : Use an extinguishing agent suitable for the surrounding fire.
Suitable extinguishing media For non-emergency personnel	 No action shall be taken involving any personal risk or without suitable training. Evacuate
For non-emergency personner	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".
6.2 Environmental precaution	
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).
6.3 Methods and materials for	r containment 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.
6.4 Reference to other sectior	15
Reference to other sections	: See Section 1 for emergency contact information.
	See Section 8 for information on appropriate personal protective equipment.
	See Section 13 for additional waste treatment information.

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ACCUCAST ID
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The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

SECTION 7: Handling and storage				
7.1 Precautions for safe handling				
Protective measures	Put on appropriate personal protective equipment (see Section 8).			
Advice on general occupational	Eating, drinking and smoking should be prohibited in areas where this material is handle			
hygiene	stored and processed. Workers should wash hands and face before eating, drinking and			
	smoking. Remove contaminated clothing and protective equipment before entering eat	ting		
	areas. See also Section 8 for additional information on hygiene measures.			

7.2 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 wellventilated 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.

7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific solutions	: Not available.
SECTION 8: Exposure cor	ntrols/personal protection
	n contains generic advice and guidance. Information is provided based on typical anticipated uses easures might be required for bulk handling or other uses that could significantly increase worker eleases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
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DNELs/DMELs

No DNELs/DMELs available. <u>PNECs</u> No PNECs available.

8.2 Exposure controls	
Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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.
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SECTION 8: Exposure con	ntrols/personal protection
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.
Other skin 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.
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.
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.

SECTION 9: Physical and che	mical properties
9.1 Information on basic phys	cal and chemical properties
<u>Appearance</u>	
Physical state	: Solid. [Solid spheres.]
Color	: Brown to dark green to black.
Odor	: Odorless.
Odor threshold	: Not applicable.
рН	: Not applicable.
Melting point/freezing point	: 2204.5°C
Initial boiling point and boiling	: Not available.
range	
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Upper/lower flammability or	: Not available.
explosive limits	
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density (water = 1)	: 3.2
Solubility(ies)	: Not available.
Partition coefficient: n-octanol/	: Not available.
water	
Bulk density (g/cm3)	: 1.81 g/cm ³
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not available.
Oxidizing properties	: Not available.
9.2 Other information	

Solubility in water

: Not applicable.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

ACCUCAST ID	
SECTION 10: Stability and	reactivity
10.1 Reactivity	
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	
Chemical stability	: The product is stable.
10.3 Possibility of hazardous	s reactions
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	
Conditions to avoid	: No specific data.
10.5 Incompatible materials	
Incompatible materials	: No specific data.
10.6 Hazardous decomposit	ion products
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological ir	nfo	rmation		
11.1 Information on toxicolog	ica	effects		
Acute toxicity				<u> </u>
Conclusion/Summary	:	Not available.		
Acute toxicity estimates				
N/A				
Irritation/Corrosion				
Conclusion/Summary	:	Not available.		
Sensitization				
Conclusion/Summary	:	Not available.		
Mutagenicity				
Conclusion/Summary	:	Not available.		
<u>Carcinogenicity</u>				
Conclusion/Summary	:	Not available.		
Reproductive toxicity				
Conclusion/Summary	:	Not available.		
Teratogenicity				
Conclusion/Summary	-	Not available.		
Specific target organ toxicity (sin	gle	<u>exposure)</u>		
Not available.				
Specific target organ toxicity (rep	bea	<u>ed exposure)</u>		
Not available.				
Aspiration hazard				
Not available.				
Information on the likely routes		Natavailable		
of exposure	•	Not available.		
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.		
C				
		nemical and toxicological characteristics		
Eye contact Inhalation		No specific data.		
	:	No specific data.		
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SECTION 11: Toxicological	nformation	
Skin contact	: No specific data.	
Ingestion	: No specific data.	
Delayed and immediate effects	and also chronic effects from short and long term exposure	
Short term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
Long term exposure		
Potential immediate effects	: Not available.	
Potential delayed effects	: Not available.	
Potential chronic health effects		
Not available.		
Conclusion/Summary	: Not available.	
General	: No known significant effects or critical hazards.	
Carcinogenicity	: No known significant effects or critical hazards.	
Mutagenicity	: No known significant effects or critical hazards.	
Teratogenicity	: No known significant effects or critical hazards.	
Developmental effects	: No known significant effects or critical hazards.	
Fertility effects	: No known significant effects or critical hazards.	
Other information	: Not available.	

SECTION 12: Ecological information			
12.1 Toxicity			
Conclusion/Summary	: Not available.		
12.2 Persistence and de Conclusion/Summary	gradability : Not available.		

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil	
Soil/water partition coefficient	: Not available.
(Koc)	
Mobility	: Not available.

12.5 Results of PBT and vPvB assessment							
Product/ingredient name	PBT	Р	В	Т	vPvB	vP	vВ
ACCUCAST ID	Not applicable (Inorganic)	N/A	N/A		Not applicable (Inorganic)	N/A	N/A

12.6 Other adverse effects

Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods			
<u>Product</u>			
Methods of disposal	: 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.		

ACCOCASTID			
SECTION 13: Disposal considerations			
Hazardous waste	: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.		
Packaging			
Methods of disposal	 The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 		
Special precautions	: 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.		

ECTION 14: Transport information					
	ADR/RID	ADN	IMDG	ΙΑΤΑ	
14.1 UN number	Not available.	Not available.	Not available.	Not available.	
14.2 UN proper shipping name	Not available.	Not available.	Not available.	Not available.	
14.3 Transport hazard class(es)	Not available.	Not available.	Not available.	Not available.	
14.4 Packing group	-	-	-	-	
14.5 Environmental hazards	No.	No.	No.	No.	

14.6 Special precautions		
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.
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	:	Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization Annex XIV None of the components are listed. Substances of very high concern None of the components are listed. Annex XVII - Restrictions on the : Not applicable. manufacture, placing on the market and use of certain dangerous substances, mixtures and articles **Other EU regulations** Industrial emissions (integrated : Not listed pollution prevention and control) - Air

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

ACCUCASTID	
SECTION 15: Regulatory inform	nation
Industrial emissions (integrated :	Not listed
pollution prevention	
and control) - Water	
Ozone depleting substances (1005/	<u>2009/EU)</u>
Not listed.	
Prior Informed Consent (PIC) (649/2	<u>2012/EU)</u>
Not listed.	
Seveso Directive	
This product is not controlled under	the Seveso Directive.
National regulations	
International regulations	
Chemical Weapon Convention List S	ichedules I, II & III Chemicals
Not listed.	
Montreal Protocol	
Not listed.	
Stockholm Convention on Persisten	t Organic Pollutants
Not listed.	
Rotterdam Convention on Prior Info	<u>Srmed Consent (PIC)</u>
Not listed.	d Heerry Metele
UNECE Aarhus Protocol on POPs and	<u>d Heavy Metals</u>
Not listed.	
Inventory list Australia :	All companents are listed or evented
	All components are listed or exempted. All components are listed or exempted.
	All components are listed or exempted.
	All components are listed or exempted.
-	Japan inventory (ENCS): Not determined.
Japan .	Japan inventory (ISHL): All components are listed or exempted.
New Zealand :	All components are listed or exempted.
	All components are listed or exempted.
	All components are listed or exempted.
•	All components are listed or exempted.
	Not determined.
	All components are listed or exempted.
-	All components are listed or exempted.
	Not determined.

15.2 Chemical Safety Assessment

Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other inform	ition	
Indicates information that h	is changed from previously issued ve	rersion.
Abbreviations and acronyms Procedure used to derive the compared to derive to derive the compared to derive the compared to derive the co	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling a DMEL = Derived Minimal Effect DNEL = Derived No Effect Leve EUH statement = CLP-specific N/A = Not available PBT = Persistent, Bioaccumula PNEC = Predicted No Effect Co RRN = REACH Registration Nur SGG = Segregation Group vPvB = Very Persistent and Ver assification according to Regulation	and Packaging Regulation [Regulation (EC) No. 1272/2008] ct Level el Hazard statement ative and Toxic oncentration mber ery Bioaccumulative
Classification		Justification
Not classified.		
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SECTION 16: Other information

Full text of abbreviated H statements Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

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Nation to used on		

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.