




I. Product and Company Information

SII Product Name(s):	Zirconic® OC	Synonym:	
Chemical Name:	Zirconium Oxychloride (Zirconyl Chloride)	CAS Number:	7699-43-6
Manufacturer's Name: Southern Ionics Incorporated 579 Commerce Street West Point, MS 39773 Customer Service: 1-800-953-3585 Web Site www.southernionics.com	Emergency Contacts: Afterhours (Southern Ionics) 1-888-610-2379 For Chemical Emergency, Spill or Accident Call CHEMTREC at 1-800-424-9300 CHEMTREC CCN - 20596		

II. Hazard Identification

OSHA HCS / GHS Classification(s):		Hazard Statement(s):	
Skin Corrosion, Category 1		Causes severe skin burns.	
Serious Eye Damage, Category 1		Causes serious eye damage.	
Corrosive to Metals, Category 1		May be corrosive to metals.	
Acute Aquatic Toxicity, Category 3		Harmful to aquatic life.	
Signal Word:	Precautionary Statement(s):		
Danger	Prevention:	Wear eye and face protection.	
Symbol(s): 		Wear protective gloves and clothing.	
	Wash affected body part thoroughly after handling.		
	Keep in original container.		
	Avoid release to the environment.		
	Response:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.	
		IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water.	
Absorb spillage to prevent material damage.			
	For specific treatment: See First Aid section IV.		

III. Composition / Information on Ingredients

Chemical Name:	CAS Reg #'s	%
Zirconium Oxychloride Crystals	7699-43-6	>99

IV. First Aid Measures

Eyes:	Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Remove any contact lenses. Seek medical attention.
Dermal / Skin:	Remove contaminated clothing and wash exposed area thoroughly with soap and water for at least 15 minutes. Seek medical attention, if you feel unwell.
Inhalation:	Move to fresh air immediately. If breathing is difficult, give oxygen. Seek medical attention, if you feel unwell.
Ingestion:	If swallowed, DO NOT induce vomiting. Rinse mouth. Seek medical attention, if you feel unwell.

V. Fire Fighting Measures

NFPA Hazard Rating:	Health (Blue)	Fire (Red)	Reactivity (Yellow)	Special Instructions (White)
	2	0	1	None
NFPA Hazard Classification: 0 = Least 1= Slight 2 = Moderate 3 = High 4 = Extreme				
Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.			
Special Firefighting Procedure:	Wear NIOSH-approved self-contained breathing apparatus (SCBA). Use water spray to keep containers cool and to knock down fumes. CAUTION: when subject to excess heat, product releases additional hydrogen chloride fumes			
Unusual Fire & Explosion Hazards:	Material stored in an area where a fire occurs will generate hydrogen chloride fumes only if significant heating occurs.			

VI. Accidental Release Measures

Precaution if Spilled or Released:	Sweep up spilled material and dispose.
Neutralizing Chemicals:	Neutralize with appropriate alkali, such as soda ash or slaked lime.

VII. Handling and Storage

Handling:	Handle all chemicals with respect. Keep separated from incompatible substances. Handle only with equipment, materials, and supplies specified by their manufacturer as being compatible and appropriate for use with this product.
Storage:	DO NOT store in unlined metal containers. Avoid contact with water. Store in a corrosive resistant container. Store at appropriate temperature to protect from freezing or crystallization. Consult the appropriate SII Product Bulletin for temperature recommendations. Do not store this material near food, animal feed, or drinking water. Store in well-ventilated area. Store away from excessive heat and from reactive materials. Keep container tightly closed when not in use.

VIII. Exposure Control / Personal Protective Equipment

Component Workplace Control Parameters:				
Components:	CAS-No.	Value	Parameters	Basis
Zirconium Oxychloride	7699-43-6	TWA	5 mg/m ³	OSHA (as zirconium metal)
Engineering Controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.			
General Hygiene:	Practice good personal hygiene after using this material, especially before eating, drinking, smoking, or using the toilet.			
Personal Protection Equipment:				
Eye:	Use chemical splash goggles and face shield. Eye protection worn must be compatible with respiratory protection system employed.			
Skin:	Chemically resistant gloves should be worn whenever this material is handled.			
Respiratory:	None for handling small quantities. This material is not dusty. Use appropriate NIOSH approved respirator if hydrogen chloride or zirconium exposure limit might be exceeded.			
Other Protective Items:	Wear impervious apron if appropriate to avoid getting material onto clothing. Ensure that eyewash stations and safety showers are proximal to the work-station location.			
HMIS Classification:	Health (Blue)	Flammability (Red)	Physical Hazard (Yellow)	PPE (White)
	2	0	1	See PPE
Hazard Classification: 0 = Minimal 1= Slight 2 = Moderate 3 = Serious 4 = Severe				

IX. Physical and Chemical Properties

Physical State:	Solid	pH:	< 1 for 10% solution
Appearance:	White crystalline	Molecular Weight:	324
Odor:	Slight hydrochloric acid odor	Odor Threshold:	No Data Available
Specific Gravity:(H₂O=1)	1.9	Weight per Gallon:	See Bulk Density
Vapor Density: (Air=1)	No Data Available	Vapor Pressure:	No Data Available
Boiling Point:	Not Applicable	Freezing/Melting Point:	No Data Available
Lower Explosive Limit:	Not Applicable	Upper Explosive Limit:	Not Applicable
Flash Point:	Not Applicable	Autoignition Temp:	Not Applicable
Solubility in water:	100%	Bulk Density :	30 - 40 lb/ft ³
Other:			

X. Stability and Reactivity Data

Chemical Stability:	Product is stable under normal or expected use.
Conditions To Avoid:	Heat – zirconium oxychloride will first lose water on heating. Further heating will result in evolution of hydrogen chloride fumes.
Incompatible Materials:	Reactive with acids and alkalis.
Hazardous Products of Decomposition:	Emits hydrogen chloride fumes, if heated.

XI. Toxicological Information

Routes of Entry:	<input checked="" type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Ingestion <input checked="" type="checkbox"/> Inhalation					
Sign and symptoms of Exposure:	May cause irritation to eyes, skin, and respiratory passages					
Eye Contact:	Causes severe eye damage.					
Ingestion:	May be harmful if swallowed.					
Skin Contact:	Causes severe skin burns.					
Inhalation:	May be harmful if dust is inhaled. May cause respiratory tract irritation.					
Carcinogenicity:	NPT	Not Listed	IARC	Not Listed	OSHA	Not Regulated
Ingredient Name:	Species		Test		Route	Results
Zirconium Oxychloride	Rat		3500 mg/kg		oral	LD 50
Comments:	Toxicity of this compound is primarily due to its acidic behavior.					

XII. Ecological Information

Ingredient Name:	Species	Test	Period	Results
Zirconium Oxychloride ¹	Flathead minnow	14 mg/L	96 hours	LC 50
Zirconium Oxychloride ²	Flathead minnow	145 mg/L	96 hours	LC 50
Comments:	¹ This information was based on water hardness of 20. This result is being used for the GHS classification of this material.			
	² This information was based on a water hardness of 400.			

XIII. Disposal Considerations

Waste Disposal:	This material cannot be directly disposed of in a landfill. First, dissolve in water, then neutralize slowly. Neutralized slurry can be dewatered and the resulting solids may be disposed of in accordance with local, state, and federal regulations.
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XIV. Transportation Information

Proper Shipping Name:	Corrosive Solids, acidic, inorganic, n.o.s. (Zirconium Oxychloride)		
DOT Classification:	8		
Identification Number:	3260	Packing Group:	II
Other Labels:	Corrosive		
Comments:	DO NOT transport in unlined metal containers.		

XV. Regulatory Information

Inventory Status:		US Regulations:	
U. S. TSCA	Yes	SARA 302 TPQ	Not Listed
Europe EINECS	Yes	SARA 304 RQ	Not Listed
Canadian DSL	Yes	SARA 313 List	Not Listed
Japan ENCS	Yes	CERCLA (RQ)	
Korean KECI	Yes	RCRA 261	
Philippines PICCS	Yes		
Australian AICS	Yes		
China IECSC	Yes	SARA 311/312	<input checked="" type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Fire <input type="checkbox"/> Release of Pressure <input type="checkbox"/> Reactive
International Regulations:		Other Regulations:	
Canada WHMIS	E	Corrosive material (Corrosive to Skin)	California PROP 65 Not Listed
EINECS	231-717-9		

XVI. Other Information

NSF Certification:	
Other:	_____
Revision Notes:	_____
MSDS Replacements	<u>SII MSDS 134 Zirconic® OC</u>

SALES OFFICE

For Product Information:
 TEL: 662-494-3055
 FAX: 662-494-2828

Post Office Drawer 1217
 West Point, MS 39773

To Place An Order:
 TEL: 800-953-3585
 FAX: 800-953-3588

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