Safety Data Sheet

Issue Date: 19-Apr-2019 Revision Date: 29-Apr-2019 Version 1 **1. IDENTIFICATION** Product identifier **Product Name** Barium Zirconate Other means of identification SDS # NT-044 BZCY, BZY. Synonyms Recommended use of the chemical and restrictions on use **Recommended Use** Laboratory chemicals and Manufacture of substances. Details of the supplier of the safety data sheet Supplier Address Nexceris, LLC 404 Enterprise Dr. Lewis Center, OH 43035 www.nexceris.com Emergency telephone number **Company Phone Number** Non-emergency calls/questions: 1-614-842-6606 Fax: 1-614-842-6607 **Emergency Telephone** INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America) 2. HAZARDS IDENTIFICATION Appearance White solid Physical state Solid **Classification**

The classification and labeling information in this Safety Data Sheet should be viewed as provisional, as physical test data has not been performed.

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Signal Word Warning

Hazard statements

Harmful if swallowed Harmful if inhaled Causes skin irritation Causes serious eye irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of water and soap If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a poison center or doctor/physician if you feel unwell IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown Acute Toxicity

NOTE: Acute Toxicity classifications / calculations are approximates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

BZCY, BZY.

Chemical name	CAS No	Weight-%
Barium cerium yttrium zirconate	NOT ASSIGNED	>95
Barium carbonate	513-77-9	<5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice	If exposed or concerned: Get medical advice/attention.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	IF ON SKIN: Wash with plenty of water and soap. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. Call a poison center or doctor/physician if you feel unwell.
Most important symptoms and effe	ects, both acute and delayed
Symptoms	Causes skin irritation. Causes serious eye irritation. Harmful if swallowed. Harmful if inhaled.
Indication of any immediate medic	al attention and special treatment needed
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Product is not flammable or combustible.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.	
Environmental precautions		
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.	
Methods and material for containm	ent and cleaning up	
Methods for Containment	Prevent further leakage or spillage if safe to do so. Contain with inert material.	
Methods for Clean-Up	Keep in suitable, closed containers for disposal. For waste disposal, see section 13 of the SDS.	

7. HANDLING AND STORAGE

Precautions for safe handling

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Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection. Use only outdoors or in a well-ventilated area.	
Conditions for safe storage, includ	ing any incompatibilities	
Storage Conditions	Store in a cool, well-ventilated area, away from ignition sources and incompatible materials. Keep container tightly closed. Store locked up.	
Incompatible Materials	Strong oxidizing agents.	
8. EX	POSURE CONTROLS/PERSONAL PROTECTION	
Exposure Guidelines	No exposure limits noted for ingredient(s). The following information is given as general guidance	
Engineering Controls	Showers Eyewash stations Ventilation systems.	
Individual protection measures, su	ch as personal protective equipment	
Eye/Face Protection	Wear safety glasses with side shields (or goggles). Refer to 29 CFR 1910.133 for eye and face protection regulations.	
Skin and Body Protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Refer to 29 CFR 1910.138 for appropriate skin and body protection.	
Respiratory Protection	If necessary, wear a MSHA/NIOSH-approved respirator. Refer to 29 CFR 1910.134 for respiratory protection requirements.	

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color	Solid White solid White	Odor Odor Threshold	Not determined Not determined
Property pH Melting point / freezing point Boiling point / boiling range Flash point Evaporation Rate Flammability (Solid, Gas) Flammability Limit in Air Upper flammability or explosive limits	Values Not determined Not determined Not determined Not determined Not determined Not determined	<u>Remarks • Method</u>	

Lower flammability or explosive	Not determined
limits	
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	Not determined
Water Solubility	Not determined
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	
Eye Contact	Causes serious eye irritation.
Skin Contact	Causes skin irritation.
Inhalation	Harmful if inhaled.
Ingestion	Harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Barium carbonate	= 418 mg/kg (Rat)	-	-
513-77-9			

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity	Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Numerical measures of toxicity	
Unknown Acute Toxicity	NOTE: Acute Toxicity classifications / calculations are approximates.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Barium carbonate		6950: 96 h Gambusia affinis mg/L	
513-77-9		LC50 static	

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Barium carbonate	Toxic
513-77-9	

14. TRANSPORT INFORMATION				
<u>Note</u>	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.			
DOT	Not regulated			
IATA	Not regulated			
IMDG	Not regulated			

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Barium carbonate	Х	Х	Х	Х	Х	Х	Х	Х

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Barium carbonate - 513-77-9	513-77-9	<5	1.0

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Barium carbonate	X		Х
513-77-9			

16. OTHER INFORMATION

NFPA HMIS	Health Hazards Not determined Health Hazards Not determined	Flammability Not determined Flammability Not determined	Instability Not determined Physical hazards Not determined	Special Hazards Not determined Personal Protection Not determined
Issue Date: Revision Date: Revision Note:	19-Apr-2019 29-Apr-2019 New format			

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet