MATERION

SAFETY DATA SHEET

1. Identification

Product identifier Cerium Oxide Product

Other means of identification

SDS number 79A

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Materion Advanced Materials Group

Address 42 Mt. Ebo Road South

Brewster, NY 10509

United States

Telephone Supplier Phone 1+845.279.0900

Website materion.com E-mail Not available.

Emergency phone number Chemtrec 1+703.527.3887

2. Hazard(s) identification

Physical hazards Not classified. Health hazards Not classified. **Environmental hazards** Not classified. OSHA defined hazards Not classified.

Label elements

Hazard symbol None. Signal word None.

Hazard statement Not available.

Precautionary statement

Prevention Not available. Response Not available. Storage Not available. Disposal Not available. None known.

Hazard(s) not otherwise

classified (HNOC)

Supplemental information None.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Cerium oxide	Cerium (IV) oxide	1306-38-3	99 - 100
	Carium diovida		

4. First-aid measures

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.

Material name: Cerium Oxide Product 1311 Version #: 01 Issue date: 06-18-2015 Most important

symptoms/effects, acute and

delayed

Not available.

5. Fire-fighting measures

Suitable extinguishing media

DRY sand, sodium chloride powder, graphite powder or Met-L-X powder.

Unsuitable extinguishing media

Not available.

Specific hazards arising from

Not applicable.

the chemical

Special protective equipment

and precautions for firefighters

Not available.

Fire fighting

Use water spray to cool unopened containers.

equipment/instructions

Accidental release measures

Personal precautions, protective

equipment and emergency

procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Dike far ahead of spill for later disposal. Following product recovery, flush area with water. For

waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling

Conditions for safe storage,

Store in original tightly closed container. Store away from incompatible materials (see Section 10

including any incompatibilities of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values No biological exposure limits noted for the ingredient(s).

Not available.

Control parameters Follow standard monitoring procedures.

Individual protection measures, such as personal protective equipment

Eye/face protection Not available.

Skin protection

Not available. Hand protection Other Not available. Not available. Respiratory protection Thermal hazards Not available.

Physical and chemical properties

Appearance

Physical state Solid. Solid. **Form**

Color Not available. Odor Not applicable. Odor threshold Not available. Not available. Нα Melting point/freezing point Not available. Initial boiling point and boiling Not applicable.

range

Not available. Flash point Not available. **Evaporation rate**

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Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 399.97 kPa at 25 °C

Vapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not applicable.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Molecular formula CeO2

10. Stability and reactivity

ReactivityNot available.Chemical stabilityNot available.Possibility of hazardousNot available.

reactions

Conditions to avoidContact with incompatible materials.

Incompatible materials Not available.

Hazardous decomposition Not available.

products

11. Toxicological information

Information on likely routes of exposure

InhalationNot available.Skin contactNot available.Eye contactNot available.IngestionNot available.

Symptoms related to the physical, chemical and toxicological characteristics

Not available.

Information on toxicological effects

Acute toxicity

Not available.

Skin corrosion/irritation

Not available.

Serious eye damage/eye

Not available.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization Not available.

Germ cell mutagenicity Not available.

Carcinogenicity

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Specific target organ toxicity - Not available. Not available.

single exposure

Specific target organ toxicity -

Not available.

repeated exposure

Aspiration hazard Not available.

12. Ecological information

No ecotoxicity data noted for the ingredient(s). **Ecotoxicity**

Persistence and degradability Not available. Not available. Bioaccumulative potential Not available. Mobility in soil Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

No

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

16. Other information, including date of preparation or last revision

06-18-2015 Issue date

Version # 01

Disclaimer Materion Brewster LLC cannot anticipate all conditions under which this information and its

> product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently

available.

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