


Ammonium Zirconium(IV) Carbonate		Pricing >
Linear Formula	$\text{Zr}(\text{CO}_3)_3(\text{NH}_4)_2$	
Pubchem CID	9883023	
MDL Number	N/A	
EC No.	N/A	
IUPAC Name	diazanium; zirconium(4+); tricarbonate	
SMILES	<chem>C(=O)([O-])[O-].C(=O)([O-])[O-].C(=O)([O-])[O-].[NH4+].[NH4+].[Zr+4]</chem>	
Inchl Identifier	InChI=1S/3CH2O3.2H3N.Zr/c3*2-1(3)4;;;h3*(H2,2,3,4);2*1H3/q;;;;;+4/p-4	
Inchl Key	PVBGYEYPRBAIIH-UHFFFAOYSA-J	
Signal Word	Warning	
Hazard Statements	H319-	
Hazard Codes	Xi	
Precautionary Statements	P264-P280-P305+P351+P338-P337+P313	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	NONH for all modes of transport	
WGK Germany	3	
GHS Pictograms	GHS07 Exclamation Point 	

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SAFETY DATA SHEET

Date Accessed: 04/25/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #68309-95-5

Relevant identified uses of the substance:
Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Eye irritation (Category 2A), H319
For the full text of the H-Statements mentioned in this Section, see Section 16.
GHS Label elements, including precautionary statements
Pictogram



Signal word Warning
Hazard statement(s)
H319 Causes serious eye irritation.
Precautionary statement(s)
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Commodity
Zirconium Ammonium Carbonate Solution
Cas No.: 68309-95-5

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, Zirconium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

For personal protection see section 8.
Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature 2 - 8 °C
Storage class (TRGS 510): 10: Combustible liquids
Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection
Safety glasses with side-shields conforming to EN166
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection
Impervious clothing, The type of protective equipment

must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance Form: liquid

b) Odour No data available

c) Odour Threshold No data available

d) pH No data available

e) Melting point/freezing point

Melting point/range: -4 °C (25 °F)

f) Initial boiling point and boiling range

No data available

g) Flash point (°)No data available

h) Evaporation rate No data available

i) Flammability (solid, gas)

No data available

j) Upper/lower flammability or explosive limits

No data available

k) Vapour pressure No data available

l) Vapour density No data available

m) Relative density 1.38 g/mL at 25 °C (77 °F)

n) Water solubility No data available

o) Partition coefficient:

n-octanol/water

No data available

p) Auto-ignition temperature

No data available

q) Decomposition temperature

No data available

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

Other safety information

No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Contains the following stabiliser(s):

(+/-)-Tartaric acid (≥ 1 - ≤ 2 %)

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

No data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides,

Zirconium oxides

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS: Not available
To the best of our knowledge, the chemical, physical,
and toxicological properties have not
been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical
safety assessment not required/not
conducted
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a
licensed disposal company. Contact a
licensed professional waste disposal service to
dispose of this material.
Contaminated packaging
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Water CAS-No.

7732-18-5

Revision Date

Ammonium zirconium(IV) carbonate 12616-24-9

Zirconium dioxide 1314-23-4

1993-04-24

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
