



RETEGO

Safety Data Sheet Barium (Ba) in Water Test Vial

SECTION 1: Identification

1.1 Product identifier

Product name	Barium (Ba) in Water Test Vial
Product number	RET-Ba
Brand	RETEGO

1.2 Other means of identification

Clear 3.5ml prepared vial marked "Ba"
Additionally identified with a date and lot stamp and the RETEGO Logo

1.3 Recommended use of the chemical and restrictions on use

This prepared reagent is designed for use with the RETEGO TTR Spectrometer for the rapid determination of Barium in water within the range of 10.0 to 1000 ppm.

1.4 Supplier's details

Name	RETEGO Labs
Address	2320 North 640 West Suite F West Bountiful, Utah 84087 United States
Telephone	801-209-5460
Fax	
email	info@retgolabs.com

1.5 Emergency phone number(s)

801-209-5460
713-485-9509

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200)

Not a hazardous substance or mixture.

Safety Data Sheet

Barium (Ba) in Water Test Vial

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
MALEIC ANHYDRIDE (CAS no.: 108-31-6; EC no.: 203-571-6; Index no.: 607-096-00-9)	< 55%
CLASSIFICATIONS: Acute toxicity (chapter 3.1), Cat. 4; Skin corrosion/irritation (chapter 3.2), Cat. 1B; Sensitization, respiratory (chapter 3.4), Cat. 1; Sensitization, skin (chapter 3.4), Cat. 1. HAZARDS: H302 - Harmful if swallowed; H314 - Causes severe skin burns and eye damage; H317 - May cause an allergic skin reaction; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.	

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

Carbon oxides

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No Data Available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

Safety Data Sheet

Barium (Ba) in Water Test Vial

6.2 Environmental precautions

No special environmental precautions required

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

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

8.1 Control parameters

CAS: 108-31-6

Maleic anhydride

Cal/OSHA: 0.1 ppm PEL inhalation; NIOSH: 1 mg/m³ REL inhalation; OSHA: 0.25 ppm PEL inhalation; 1 mg/m³ PEL inhalation

8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

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

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required.

Safety Data Sheet

Barium (Ba) in Water Test Vial

Thermal hazards

None Known

Environmental exposure controls

None Known

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form	Solid
Odor	None
Odor threshold	No Data Available
pH	No Data Available
Melting point/freezing point	No Data Available
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability (solid, gas)	No Data Available
Upper/lower flammability limits	No Data Available
Upper/lower explosive limits	No Data Available
Vapor pressure	No Data Available
Vapor density	No Data Available
Relative density	No Data Available
Solubility(ies)	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidizing properties	No Data Available

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No Data Available

10.4 Conditions to avoid

No Data Available

10.5 Incompatible materials

No Data Available

10.6 Hazardous decomposition products

No Data Available

Safety Data Sheet

Barium (Ba) in Water Test Vial

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No Data Available

Skin corrosion/irritation

No Data Available

Serious eye damage/irritation

No Data Available

Respiratory or skin sensitization

No Data Available

Germ cell mutagenicity

No Data Available

Carcinogenicity

This product is, or contains, a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

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 identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No Data Available

Summary of evaluation of the CMR properties

No Data Available

STOT-single exposure

No Data Available

STOT-repeated exposure

No Data Available

Aspiration hazard

No Data Available

Additional information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Safety Data Sheet

Barium (Ba) in Water Test Vial

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

Disposal of the product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Disposal of 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

15.1 Safety, health and environmental regulations specific for the product in question

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 (DeMinimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Safety Data Sheet

Barium (Ba) in Water Test Vial

Massachusetts Right To Know Components

Chemical name: Maleic anhydride

CAS number: 108-31-6

New Jersey Right To Know Components

Common name: MALEIC ANHYDRIDE

CAS number: 108-31-6

Pennsylvania Right To Know Components

Chemical name: 2,5-Furandione

CAS number: 108-31-6

Pennsylvania Right To Know Components

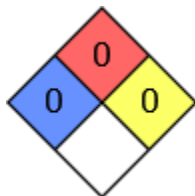
Chemical name: Sodium sulfate (solution)

CAS number: 7757-82-6

HMIS Rating

Barium (Ba) in Water Test Vial	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	A

NFPA Rating



SECTION 16: Other information

Copyright 2017 RETEGO Labs LLC (Wyoming)

16.1 Further information/disclaimer

License granted to make unlimited paper copies for internal use only.

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. RETEGO Labs L.L.C. (Wyoming) and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

16.2 Preparation information

L. D. Merrill June 27, 2017