

# Material Safety Data Sheet

## Barium Oxide, Powder, Tech. 90%

ACC# 97187

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Barium Oxide, Powder, Tech. 90%

**Catalog Numbers:** AC207830000, AC207835000

**Synonyms:** Barium Monoxide.

**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
1304-28-5	Barium Oxide	90%	215-127-9

**Hazard Symbols:** XN C

**Risk Phrases:** 20/22 34

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: grey solid. **Danger!** Corrosive. Causes eye and skin burns. Causes digestive and respiratory tract burns. Moisture sensitive.

**Target Organs:** None.

#### Potential Health Effects

**Eye:** Causes eye burns.

**Skin:** Causes skin burns.

**Ingestion:** Causes gastrointestinal tract burns.

**Inhalation:** May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Get medical aid immediately. Extensive irrigation with water is required (at least 30 minutes).

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

**Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Reduce airborne dust and prevent scattering by moistening with water. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get on skin or in eyes. Do not ingest or inhale. Discard contaminated shoes.

**Storage:** Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Barium Oxide	none listed	none listed	none listed

**OSHA Vacated PELs:** Barium Oxide: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** grey

**Odor:** Odorless.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 2000 deg C @ 760.00mm Hg

**Freezing/Melting Point:** 1920 deg C

**Decomposition Temperature:** Not available.

**Solubility:** soluble

**Specific Gravity/Density:** 5.7200g/cm<sup>3</sup>

**Molecular Formula:** BaO

**Molecular Weight:** 153.34

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Absorbs carbon dioxide from the air.

**Conditions to Avoid:** Incompatible materials, dust generation, excess heat, exposure to moist air or water.

**Incompatibilities with Other Materials:** Acids, acid chlorides, acid anhydrides, reducing agents, moisture, hydrogen sulfide, hydroxylamine.

**Hazardous Decomposition Products:** Irritating and toxic fumes and gases, barium oxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 1304-28-5: CQ9800000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 1304-28-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Neurotoxicity:** No information available.

**Mutagenicity:** No information available.

**Other Studies:** No data available.

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. Toxic for waterorganisms: minimal lethal dosage: 100 - 10 ppm

**Environmental:** No information available.

**Physical:** No information available.

**Other:** No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	BARIUM OXIDE				BARIUM OXIDE
<b>Hazard Class:</b>	6.1				6.1
<b>UN Number:</b>	UN1884				UN1884
<b>Packing Group:</b>	III				III

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 1304-28-5 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### SARA

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

This material contains Barium Oxide (listed as Barium), 90%, (CAS# 1304-28-5) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 1304-28-5 can be found on the following state right to know lists: New Jersey.

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

XN C

#### Risk Phrases:

R 20/22 Harmful by inhalation and if swallowed.

R 34 Causes burns.

#### Safety Phrases:

S 28A After contact with skin, wash immediately with plenty of water.

#### WGK (Water Danger/Protection)

CAS# 1304-28-5: 1

#### Canada - DSL/NDSL

CAS# 1304-28-5 is listed on Canada's DSL List.

#### Canada - WHMIS

This product does not have a WHMIS classification.

#### Canadian Ingredient Disclosure List

CAS# 1304-28-5 is not listed on the Canadian Ingredient Disclosure List.

#### Exposure Limits

CAS# 1304-28-5: OEL-AUSTRALIA:TWA 0.5 mg(Ba)/m3 OEL-AUSTRIA:TWA 0.5 mg(Ba)/m3 OEL-BELGIUM:TWA 0.5 mg(Ba)/m3 OEL-DENMARK:TWA 0.5 mg(Ba)/m3 OEL-FINLAND:TWA 0.5 mg(Ba)/m3 OEL-GERMANY:TWA 0.5 mg(Ba)/m3 (total dust) OEL-HUNGARY:STEL 0.5 mg(Ba)/m3 OEL-THE NETHERLANDS:TWA 0.5 mg(Ba)/m3 OEL-THE PHILIPPINES:TWA 0.5 mg(Ba)/m3 OEL-POLAND:TWA 0.5 mg(Ba)/m3;STEL 1.5 mg(Ba)/m3 OEL-RUSSIA:STEL 6 mg/m3 OEL-SWITZERLAND:TWA 0.5 mg(Ba)/m3;STEL 1 mg(Ba)/m OEL-TURKEY:TWA 0.5 mg(Ba)/m3 OEL-UNITED KINGDOM:TWA 0.5 mg(Ba)/m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

## Section 16 - Additional Information

**MSDS Creation Date:** 1/07/1999

**Revision #2 Date:** 3/18/2003

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*