

## SAFETY DATA SHEET

Ref. Mat. Alumina SA~0.49 m<sup>2</sup>/g

Date of Preparation: 06/24/2014

SDS #: 004-16816-00MSDS

### SECTION 1: IDENTIFICATION

**Product Identification:** Ref. Mat. Alumina SA~0.49 m<sup>2</sup>/g

**CAS Number:** Not Available

**Chemical Formula:** Gamma Aluminum Oxide

**Volumes:** Not Available

**Other Designations:** Not Available

**Recommended Use:** Reference material.

**Restrictions:** For laboratory use only.

**Supplier Information:**

Micromeritics Instrument Corp.  
4356 Communications Drive  
Norcross, GA 30093-2901 USA

Contact: Human Resources  
Phone: (770) 662-3636  
Fax: (770) 662-3696

**Manufacturer:** Norton Chemical Process Products Corp. PO Box 350, Akron, OH 44309  
(216) 673-5860, (800) 424-9300

### SECTION 2: HAZARDS IDENTIFICATION

**GHS Classification:** Category 1 Skin sensitization

**Signal word:** Not Applicable

**Hazard Statement:**

H305: May be harmful if swallowed and enters airways

H316: Causes mild skin irritation

**Pictograms:**



**Precautionary Statements:**

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

P280 - Wear eye protection/ face protection

P285 - In case of inadequate ventilation wear respiratory 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

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

**Potential Health Effects**

**Target Organs:**

**Acute Effects**

**Inhalation:** If dust is created there is the possibility of breathing in irritant powders. Prolonged (years) exposure to silica can lead to silicosis. Silica may also be carcinogen. Respiratory passage may feel dry.

**Eye:** Dust may cause irritation.

**Skin:** Dust may cause a feeling of dryness. Roughness may cause minor abrasion.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	% wt
Aluminum Oxide (alumina)	1344-28-1	99.7-99.9
Silicon Dioxide (silica)	14808-60-7	0.1-0.2
Ferric Oxide (iron oxide)	1309-37-1	0.1

**Trace Impurities:**

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Aluminum Oxide	10 mg/m <sup>3</sup>	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Silicon Dioxide	0.1 mg/m <sup>3</sup>	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Ferric Oxide	10 mg/m <sup>3</sup>	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.

### SECTION 4: FIRST-AID MEASURES

**Inhalation:** For acute exposure remove victim to fresh air. Call for medical assistance.

**Eye Contact:** Irrigate eyes with clean water for at least 15 minutes. If irritation continues, get medical assistance.

**Skin Contact:** Wash affected areas with clean water.

**Ingestion:** N/A

**After first aid, get appropriate in-plant, paramedic, or community medical support.**

**Note to Physicians:**

**Special Precautions/Procedures:**

### SECTION 5: FIRE-FIGHTING MEASURES

**Flammability Classification:** Not Applicable

**Extinguishing Media:** Not Applicable

**Unusual Fire or Explosion Hazards:** Not Applicable

**Hazardous Combustion Products:** Not Applicable

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Spill /Leak Procedures:

**Small Spills:** Landfill in accordance with local, state and federal regulations. Be guided by presence of chemicals to which these articles may have been exposed in user's process.

### Large Spills

**Containment:** Do not release into sewers or waterways.

**Cleanup:** Minimize dust, sweep, shovel or vacuum. Watch footing if particles fall onto walkways.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

## SECTION 7: HANDLING AND STORAGE

**Handling Precautions:** Minimize dust, sweep, shovel or vacuum. Watch footing if particles fall onto walkways.

**Storage Requirements:** Avoid rough handling.

**Regulatory Requirements:**

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Controls:

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

### Administrative Controls:

**Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Flash Point:** Not Applicable

**Flash Point Method:** Not Applicable

**Burning Rate:** Not Applicable

**Autoignition Temperature:** Not Applicable

**LEL:** Not Applicable

**UEL:** Not Applicable

**Physical State:** Not Applicable

**Appearance and Odor:** White shapes - odorless.

**Odor Threshold:** Not Applicable

**Vapor Pressure:** Not Applicable

**Vapor Density (Air=1):** Not Applicable

**Formula Weight:** Not Applicable

**Density:** Not Applicable

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.0 - 1.2

**pH:** Not Applicable

**Water Solubility:** Insoluble

**Other Solubilities:** Not Applicable

**Boiling Point:** Not Applicable

**Freezing/Melting Point:** Not Applicable

**Viscosity:** Not Applicable

**Refractive Index:** Not Applicable

**Surface Tension:** Not Applicable

**% Volatile:** Not Applicable

**Evaporation Rate:** Not Applicable

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** This is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** None

**Conditions to Avoid:** Place in dry, clean area. Do not over stack cartons.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Acute toxicity:

LD50 Oral - rat - 6,450 mg/kg

Inhalation: no data available

Dermal: no data available

### Skin corrosion/irritation:

Skin - rabbit

Result: No skin irritation

(OECD Test Guideline 404)

### Serious eye damage/eye irritation:

Eyes - rabbit

Result: Mild eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitization:** 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.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**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

**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: FF9335000

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

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** Not Available

**Environmental Fate:** Not Available

**Environmental Degradation:** Not Available

**Soil Absorption/Mobility:** Not Available

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

**Disposal Regulatory Requirements:** As sold these articles are inert and non-hazardous. If customer's processing introduces hazardous (toxic) materials to the articles be guided by their nature. Minimize dust when handling these articles.

**Container Cleaning and Disposal:** Not listed.

## SECTION 14: TRANSPORT INFORMATION

**DOT Transportation Data (49 CFR 172.101):**

**Shipping Name:** Not regulated

**Shipping Symbols:** Not Applicable

**Hazard Class:** Not regulated

**ID No.:** Not regulated

**Packing Group:** Not Applicable

**Label:** Not Applicable

**Special Provisions (172.102):**

Not Applicable

#### **Packaging Authorizations**

a) **Exceptions:** Not Applicable

b) **Non-bulk Packaging:** Not Applicable

c) **Bulk Packaging:** Not Applicable

#### **Quantity Limitations**

a) **Passenger, Aircraft, or Railcar:** Not Applicable

b) **Cargo Aircraft Only:** Not Applicable

#### **Vessel Stowage Requirements**

a) **Vessel Stowage:** Not Applicable

b) **Other:** Not Applicable

## **SECTION 15: REGULATORY INFORMATION**

#### **EPA Regulations:**

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261.): Not classified

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ)

#### **OSHA Regulations:**

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29CFR 1910.)

## **SECTION 16: OTHER INFORMATION**

**Prepared By:** Zuniga, A.

**Revision Notes:** Not Applicable

**Additional Hazard Rating Systems:** Not Applicable

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