

## SAFETY DATA SHEET

### SECTION 1. COMPANY IDENTIFICATION AND CHEMICAL PRODUCT

Company Name: Lawrence Factor, Inc.  
Address: 4790 NW 157 Street, Miami Lakes, FL 33014  
Phone / Fax: 305-430-0550 / 305-430-0864

Chemical Name: Activated Alumina  
Product Use: Desiccant

### SECTION 2. HAZARDS IDENTIFICATION

#### Potential Health Effects:

Inhalation: Exposure to dust particles generated from this material may cause irritation of the respiratory tract. Exposure to high concentrations may cause coughing and difficulty breathing.

Ingestion: No adverse health effects are expected from swallowing.

Skin Contact: May cause skin irritation and/or dermatitis.

Eye Contact: Large amounts of dust may cause mechanical irritation.

#### Potential Chronic Health Hazards:

Prolonged or repeated exposure to dust may cause pulmonary disorders.

#### Medical Conditions Generally Aggravated By Exposure:

Pulmonary disorders and dermal ailments.

### SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient: Aluminum Oxide, Hydrate  
CAS No: 1344-28-1  
Weight in Percent (%): 94 - 100

### SECTION 4. FIRST AID MEASURES

Inhalation: Move person to fresh air. Aid in breathing if necessary, and get immediate medical attention.

Ingestion: Not a hazard under normal use conditions. If large quantities are ingested, seek medical advice.

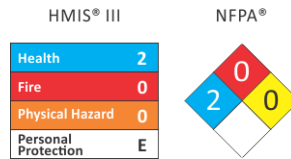
Skin Contact: Wash with soap and water. Get medical attention if irritation persists.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

### SECTION 5. FIRE AND EXPLOSION DATA

Flammability of Product ... Non-Flammable  
Flash Points..... Not Applicable  
Fire Hazards in Presence  
of Various Substances ..... Not Applicable

Auto-Ignition Temp ..... Non-Flammable  
Flammable Limits ..... Not Applicable  
Prod of Combustion ..... Not Available



Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact ..... Not Available

Risks of explosion of the product in presence of static discharge ..... Not Available

Fire Fighting Media and Instructions..... Not Applicable

**Special Remarks on Fire Hazards ... ..... Chlorine Trifluoride reacts violently with Aluminum Oxide producing a flame.**

Special Remarks on Explosion Hazards..... Not Available

**SECTION 6.**

**ACCIDENTAL RELEASE MEASURES**

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow evacuation through the sanitary system.

**SECTION 7.**

**SAFE HANDLING AND STORAGE**

Storage:

Keep container tightly closed suitable for any general chemical storage area. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Do not store above 24<sup>0</sup> C (75<sup>0</sup> F).

**SECTION 8.**

**EXPOSURE CONTROLS / PERSONAL PROTECTION**

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Suggested Personal Protection:

Safety glasses, lab coat, gloves, and NIOSH approved dust respirator/mask.

Personal Protection In Case of Large Spills:

Splash goggles, full suit, dust respirator, boots, gloves, and a self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient. Consult a specialist before handling this product.

Exposure Limits:

OSHA PEL..... 5 (mg/m<sup>3</sup>) Inhalation Respirable..... 15 (mg/m<sup>3</sup>)  
ACGIH TLV..... 10 (mg/m<sup>3</sup>)

**SECTION 9.**

**PHYSICAL AND CHEMICAL PROPERTIES**

Physical State..... Solid Balls  
Color..... Off-white  
Boiling Point ..... 2050<sup>0</sup> C

Odor..... Odorless  
pH ..... 9.4 – 10.1  
Bulk Density ..... 620 – 830 kg/m<sup>3</sup>  
Solubility (in water) .....Insoluble

**SECTION 10.**

**STABILITY AND REACTIVITY**

Chemical Stability:

The product is stable.

Instability Temperature: Not Available

Instability Conditions: Incompatible materials, moisture (adsorbs water with evolution of heat), dust generation.

Incompatibility with Various Substances..... Contact with water may produce significant amount of heat.  
 Hazardous Decomposition Products ..... Not Available  
 Polymerization... ..... None Anticipated

**SECTION 11.**

**TOXICOLOGICAL INFORMATION**

Routes of Entry:

Inhalation and Ingestion

Toxicity to Animals:

LD50..... Not Available  
 LC50 ..... Not Available

Special Remarks On Toxicity to Animals:..... Not Available

Chronic Effects on Humans:

Carcinogenic..... A4 (Not classifiable for humans or animals) by ACGIH  
 Teratogenic..... Classified none; for humans.  
 Other Effects ..... Slightly hazardous in case of skin contact, ingestion, or inhalation.

Special Remarks On:

Chronic Effects on Humans..... May cause Cancer (tumorigenic) according to animal data.  
 Other Toxic Effects on Humans..... Not Available

Acute / Chronic Potential Health Effects:

Skin ..... May cause skin irritation. The product gets hot as it adsorbs water. Burns to moist or wet skin tissue may result if contact is prolonged.  
 Eyes ..... Dust may cause eye irritation.  
 Ingestion ..... The product gets hot as it first adsorbs water. Burns to moist body tissues may result if contact is prolonged.  
 Inhalation..... Exposure to dust particles generated from this material may cause irritation of the respiratory tract and may cause lung injury.

**SECTION 12.**

**ECOLOGICAL INFORMATION**

Environmental Fate:

No data available.

Ecotoxicological Info:

No data available.

**SECTION 13.**

**DISPOSAL CONSIDERATIONS**

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.  
 US EPA Waste No. ....Not Regulated.

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal regulations. Dispose of container and unused contents in accordance with local, state, and federal regulations.

**SECTION 14.**

**TRANSPORT INFORMATION**

DOT (Department Of Transportation)

Land Transport (USDOT): Not classified as dangerous goods under transportation regulations.  
 Sea Transport (IMDG): Not classified as dangerous goods under transportation regulations.  
 Air Transport (IATA/ICAO): Not classified as dangerous goods under transportation regulations.

HMIS® III		NFPA®	
Health	2	2	0
Fire	0	0	0
Physical Hazard	0		
Personal Protection	E		

**SECTION 15.**

**OTHER REGULATORY INFORMATION**

Federal and State Regulations - CA, MA, NJ, IL, MN, and RI: Aluminum Oxide

- TSCA 8(b) inventory .....Aluminum Oxide
- SARA 311/312 .... Acute Health Hazard
- SARA 313..... No

CAA 602 Ozone Depleting Substances: This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clean Air Act Amendments 1990 and CFR Part 82.

Other Classifications:

WHMIS (Canada) ..... Class D, Division 2, Subdivision B

HMIS® (USA)

- Health Hazard .... 2
- Fire Hazard..... 0
- Reactivity..... 0
- Personal Protection..... E

NFPA® (USA)

- Health... 2
- Flammability..... 0
- Reactivity..... 0

Personal Protection: Safety glasses, gloves, and National Institute for Occupational Safety and Health (NIOSH) approved dust respirator/mask.

HMIS® and NFPA® ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered.

- The information and recommendations set forth herein are believed to be accurate as of the date hereof. We make no warranty with respect thereto and disclaim all liability from reliance thereon.
- Container labeling-uses Hazardous Materials Identification System (HMIS®). Hazardous Index under this system rates degree of hazard from 0 to 4 in each category:
  - 0 = minimal hazard
  - 1 = slight hazard
  - 2 = moderate hazard
  - 3 = serious hazard

**SECTION 16.**

**OTHER INFORMATION**

References:

Not Available.

Other Consideration:

Not Available.

For additional information concerning this product, contact the following:

**Product emergencies:**

If you have a product-related emergency, resulting in an accident such as a spill or release of product or human exposure and need assistance from Lawrence Factor, please contact the following number:

**LAWRENCE FACTOR, INC. 800-338-5493**

General:

The data and recommendations presented in this data sheet concerning the use of our product and the materials contained therein are believed to be accurate and are based on information which is considered reliable as of the date hereof. However, the customer should determine the suitability of such materials for his purpose before adopting them on a commercial scale. Since the use of our products by others is beyond our control, no guarantee, express or implied, is made and no responsibility assumed for the use

HMIS® III

Health	2
Fire	0
Physical Hazard	0
Personal Protection	E



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