

Microbe-sorb  
Revision Date: *December 2020*

**SAFETY DATA SHEET**

**1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY**

**Product Identification:** Microbe-sorb

**Product Synonyms:** Alumina impregnated with Sodium Permanganate

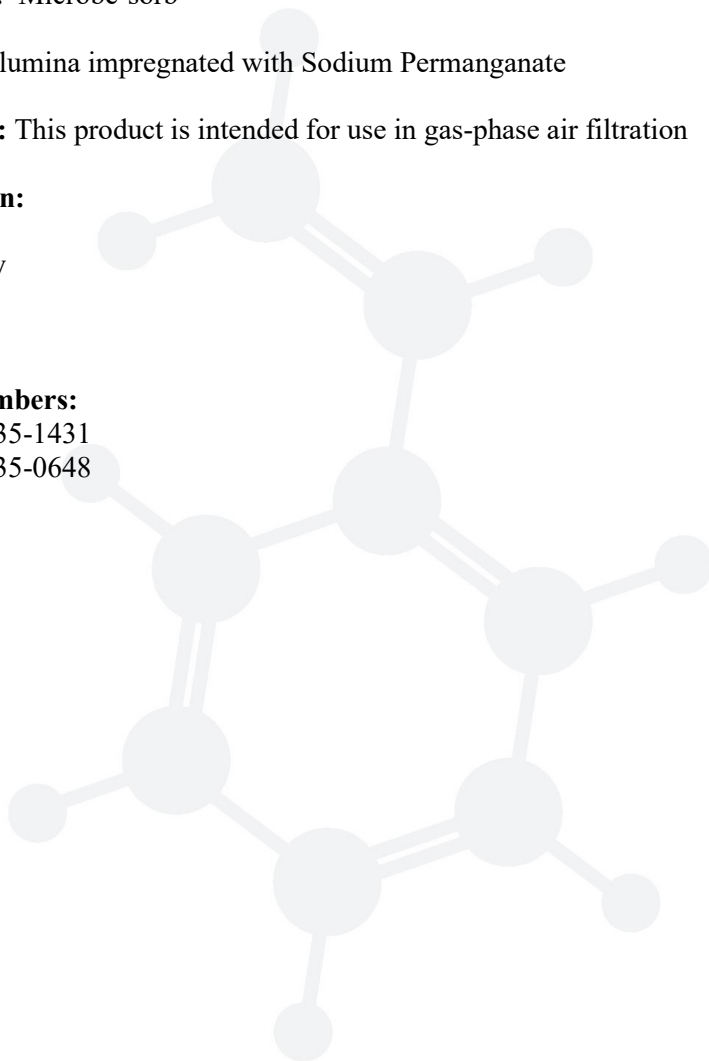
**Use of the preparation:** This product is intended for use in gas-phase air filtration

**Company Identification:**

Pure Air Filtration  
6050 Peachtree Parkway  
Suite 240-187  
Atlanta, GA 30092

**Company Contact Numbers:**

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## 2. HAZARD(S) IDENTIFICATION

Irritant, Category 2  
Eye Irritation, Category 2



GHS Hazard Codes: H315: Causes Skin Irritation  
H319: Causes Serious Eye Irritation

GHS Precaution Codes: P264: Wash hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Codes: P302+352: IF ON SKIN: wash with plenty of soap and water.  
P332+313: IF SKIN irritation occurs: Get medical advice/attention.  
P362: Take off contaminated clothing and wash before reuse.  
P305+P351+P338+P337+P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

GHS Storage Codes: P401: Store in a cool, dry area in enclosed containers.

### **Most Important Hazards:**

- If crushed or handled extensively, dust may evolve and can be irritating to the eyes, skin or respiratory tract.
- Confined space entry. Appropriate safety precautions should be taken when entering any confined space. Entering containers or media vessel/tanks housing activated carbon for inspection, maintenance, etc. may constitute a confined space entry. In confined spaces, activated carbon may remove oxygen from the air causing severe hazards for workers entering such spaces. Before and during the entrance of a confined space all local, state, and federal regulations should be followed.

### **Adverse Human Health Effects:**

—The following medical conditions may be aggravated by exposure to the product: asthma, chronic lung disease, and skin rashes.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name and Synonyms: Alumina  
Formula: NaMnO<sub>4</sub> impregnant (12%) on aluminum oxide (66%-70%)  
Proprietary ingredient: less than 10%  
Chemical Family: Inorganic Oxidizer  
CAS Number: 1344-28-1

<u>Common Chemical Name</u>	<u>Synonyms</u>	<u>CAS#</u>	<u>Wt%</u>	<u>EC #</u>	<u>EU</u>
<u>Classification</u>					
Aluminum Oxide	alumina	1344-28-1	88-96 %		
Sodium Permanganate		7722-64-7	4-12 %		

NOTE: The Hazard Classification listed in this section refers to the chemical at a pure concentration. It has been determined that the remaining ingredient(s) of this component/product are NOT CLASSIFIED AS HAZARDOUS CHEMICALS due to their physical and/or chemical nature and/or concentration in solution, in accordance with California and Federal OSHA regulations (Federal Register 29CFR 1910.1200), and The Chemicals (Hazard Information and Packaging for Supply) Regulations (European Community).

#### **4. FIRST-AID MEASURES**

First aid measures should be taken as indicated below for the following routes of exposure.

**Inhalation:** Move to fresh air. If breathing difficulty occurs or persists, seek medical attention.

**Skin Contact:** Wash area with soap and water. If irritated persists, seek medical attention.

**Eye Contact:** Flush with large quantities of water for 15 min. Seek medical attention.

**Ingestion:** Seek medical attention.

#### **Notes to Physician:**

Product is expected to be non-toxic and only an eye irritant in the powder form. Treatment is recommended to be symptomatic and supportive.

#### **5. FIRE-FIGHTING MEASURES**

##### **Suitable Extinguishing Media:**

If involved in a fire, flood with plenty of water.

##### **Specific Hazards:**

- High airborne concentrations of dust may pose an explosion hazard
- Carbon monoxide and oxides of phosphorous may be generated in the event of a fire

##### **Protection of Firefighters:**

Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing.

#### **6. ACCIDENTAL RELEASE MEASURES**

##### **Personal Precautions:**

Protective clothing appropriate for the environment should be worn. Goggles or safety glasses with side shields, NIOSH approved dust masks, rubber or plastic gloves, and full cover clothing covering arms and legs are recommended.

##### **Environmental Precautions:**

None known

##### **Methods for Cleaning Up:**

Clean up using dry procedures (broom, shovel, etc.); avoid dusting.

##### **Recovery:**

Product may be recovered for use if it has not come in contact with liquid, changed color, or been

exposed to significant amounts of gaseous contaminants.

**Disposal:**

See Section 13: DISPOSAL CONSIDERATIONS

**7. HANDLING AND STORAGE**

**Handling:**

Use air conveying (vacuum) for bulk removal. If manual handling is used for transfer (from vessel, slingbags, boxes, or pails), use mechanical ventilation or other measures to remove airborne dust.

**Prevention of User Exposure:** See section 8

**Prevention of Fire and Explosion:**

Contact with strong oxidizers may result in fire.

**Precautions for Safe Handling:**

-Confined space entry. Appropriate safety precautions should be taken when entering any confined space. Entering containers or media vessels/tanks housing active carbon for inspection, maintenance, etc. may constitute a confined space entry. In confined spaces, activated carbon may remove oxygen from the air causing severe hazards for workers entering such spaces. Before and entrance of a confined all local, state, and federal regulations should be followed.

-Avoid crushing the product to keep dusting to a minimum. As described under Handling above, mechanical ventilation or other measures may be needed to remove airborne dust.

-Protect from water exposure to contaminated air (gaseous, particulate, and aerosol contaminated), otherwise the product may be rendered useless.

**Storage:**

General good storage practices should be followed.

**Suitable Conditions:**

Store in a cool, dry area and keep in original, closed containers.

**Incompatible Products:**

-Product should be kept protected from water and exposure to contaminated air (gaseous, Particulate, and aerosol contaminated), otherwise the product may be rendered useless.

-Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, permanganates, peroxides, etc. may result in fire.

**Recommended Packaging Materials:**

-Corrugated boxes of 50 lb, double wall quality, with 4 mm plastic liners.

-Injection molded polystyrene pails and lids including a neoprene seal.

**Not Suitable Materials:**

Porous materials allowing contact with water, air, and the contaminants contained therein.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Limit Values:**

Inert or Nuisance Dust	5mg/m <sup>3</sup> respirable fraction	OSHA PEL
	15 mg/m <sup>3</sup> total dust	OSHA PEL

**Exposure Controls:**

Minimize eye and skin contact by using appropriate protective equipment. Use local or general room ventilations to control airborne dust that may be generated.

**Personal Protective Equipment:**

The following recommendations are made for appropriate personal protective equipment for the following.

<b>Respiratory Protection:</b>	NIOSH approved dust mask
<b>Hand Protection:</b>	Rubber or plastic gloves
<b>Eye Protection:</b>	Goggles or safety glasses with side shields
<b>Skin and Body Protection:</b>	Full cover clothing covering arms and legs.
<b>Hygiene Measures:</b>	Do not inhale dust and avoid contact with eyes.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Solid
<b>Form:</b>	Spherical pellets approximately 4mm (1/8 in. nominal) in diameter
<b>Color:</b>	Purple
<b>Odor:</b>	No significant odor

### **Health, Safety, Environmental Information**

<b>pH:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Flammability:</b>	Not flammable under normal conditions
<b>Explosive properties:</b>	Not explosive
<b>Oxidizing properties:</b>	not considered an oxidizing agent; minimal oxidizing potential
<b>Vapor pressure:</b>	Not applicable
<b>Bulk density:</b>	45-60 lb/cu ft
<b>Solubility:</b>	partially soluble in water. Will dissolve in concentrated acids and alkalis.
<b>Partition coefficient:</b>	Not applicable
<b>Viscosity:</b>	Not applicable
<b>Vapor density:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable

## **10. STABILITY AND REACTIVITY**

**Stability:**  
Stable under normal conditions

**Materials to Avoid:**  
None known

**Conditions to Avoid:**  
Protect from water and exposure to contaminated air, otherwise media may be rendered useless.

**Hazardous Decomposition Products:**  
Dilute NaMnO<sub>4</sub> solution when wetted.

**Intended Use and Foreseeable Misuse:**  
Intended use is for air purification from gaseous contaminants. The product is not intended to remove dangerous particulates or biological contaminants. The product is not intended to purify water.

## **11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity:** Expected to be low[2], not tested

**Local Effects:** See section 3. **HAZARDS IDENTIFICATION, Adverse Human Health Effects.**

**Sensitization:**

**Primary skin irritation and corrosivity (rabbits):** expected to be non-irritant, not tested

**Eye irritation (rabbits):** expected to be irritant not tested

**Primary Route of Entry:** Inhalation, ingestion, skin contact, eye contact

**12. ECOLOGICAL INFORMATION**

Not determined. See Section 3. “HAZARDS IDENTIFICATION, Environmental Effects”.

**13. DISPOSAL CONSIDERATIONS**

**Waste From Residues:**

Spent media that has removed toxic chemicals should be examined for specific hazards. Local regulations should always be consulted and followed.

**Contaminated Packaging:** Not relevant

**14. TRANSPORT INFORMATION**

**International Regulations:** not applicable

**Proper Shipping Name:** NMFC 13090 ALUMINA

**15. REGULATORY INFORMATION**

**Regulations:**

This section contains information specifically applicable to the chemical product relative to the following regulations. Local regulations should always be consulted and followed.

**SARA Title III (Superfund Amendments and Reauthorization Act)**

**Section 302 Extremely Hazardous Substances (40CFR355):**

Not listed

**Section 312 Hazard Categories (40CFR370.2):**

Only expected as Acute (eye irritant), see section 11 TOXICOLOGICAL INFORMATION.

**Section 313 Reportable Ingredients (40CFR372):**

None listed

**EU Classifications & Labeling:**



Xi – Irritant

**Risk Phrases:**

R36/37/38: Irritating to eyes, respiratory system and skin

**Safety Phrases:**

- S3: Keep in cool Place.  
S8: Keep container dry.  
S24/25: Avoid contact with skin and eyes.  
S26: In case of contact with, eyes, rinse immediately with plenty of water and seek medical advice  
S28: After contact with skin, wash immediately with plenty of soap and water.  
S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.  
S63: In case of accident by inhalation: remove casualty to fresh air and keep at rest.

## **16. OTHER INFORMATION**

### **Ingredient R(isk) Phrase Definitions:**

None

### **Disclaimer:**

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones, which exist. Pure Air Filtration, LLC makes no warrants of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. The user has sole responsibility to determine the suitability of the material for any use and the manner of use contemplated.

