MULTISORB
Multisorb Technologies Inc.

MATERIAL SAFETY DATA SHEET

Effective Date December 13, 2004
MSDS Number

Section 1 – Product and Company Information

Product Name:	Multiform Ear Tech Scavenger
Product Use:	Desiccant, absorbent
Grades:	Silica gel & activated carbon
Synonyms:	Amorphous silica gel, SiO_2, silicon dioxide (amorphous) Activated Carbon, carbon
Company;	Multisorb Technologies, Inc.
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Section 2 – Composition / Information on Ingredients

Component Name	CAS Number	% by Weight
Synthetic amorphous silica gel (SiO_2)	112926-00-8	70 - 90
Activated carbon	7440-44-0	5 - 20
Proprietary binder	Not listed	5- 20

While this material is not classified as hazardous, this MSDS contains valuable information critical to the safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

Section 3 – Hazard Identification

Emergency Overview: A gray block that poses little or no immediate hazard. This material is not combustible.

Potential Health Effects:

Eyes: Dust from this product may cause eye discomfort and irritation seen as tearing and reddening.

Skin: Dust from this product may cause drying of the skin.

Ingestion: Ingestion is very unlikely due to the size of the product.

Inhalation: Dust may cause slight irritation.

Medical Effects Generally Aggravated by Exposure: Not applicable

Chronic Effects/Carcinogenity: Dust may cause eye, skin and mucous membrane irritation and drying.

Section 4 – First Aid Measures

Eyes: Rinse the eyes well with water while lifting the eye lids. If irritation persists, consult a physician.

Skin: Wash affected area with soap and water.

Ingestion: Ingestion is very unlikely.

Inhalation: Remove the affected person to fresh air and get medical attention if necessary.

Notes to Physician: Not applicable

Section 5 – Fire Fighting Measures

Flammable Properties: Not flammable

Flash Point: Not applicable **Method:** Not applicable

Flammable Limits: Not flammable

Lower Flammability Limit: Not applicable

Upper Flammability Limit: Not applicable

Autoignition Temperature: Not applicable

Hazardous Combustion Products: Not applicable

Extinguishing Media: Use extinguishing media that is appropriate for the surrounding fire. This product is not combustible.

Fire Fighting Instructions: Not combustible

Unusual Fire and Explosion Hazards: None

Section 6 – Accidental Release Measures

Spill: Sweep or vacuum up and place the spilled material in a waste disposal container. Avoid raising dust. Wash with soap and water after handling.

Section 7 – Handling and Storage

Handling: Avoid raising dust and minimize the contact between worker and the product. Practice good hygienic work practices.

Storage: Store in a cool, dry location. Keep in sealed containers away from moisture. This product will readily adsorb moisture.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls: Not required

Respiratory Protection: Not required

Skin Protection: Not required

Eye Protection: Not required

Component Name	Exposure Limits OSHA PEL	ACGIH TLV	Other Recommended Limits
Silica gel	TWA 20 mppcf (80 mg / m^3 % SiO_2)	TWA 10 mg / m^3	NIOSH REL TWA 6 mg / m^3 IDLH 3000 mg / m^3
Activated carbon	TWA 15 mg / m^3 (total) TWA 5 mg / m^3 (respirable dust)	Not applicable	Not applicable

Section 9 – Physical and Chemical Properties

Appearance:	Gray block	**Vapor Density:**	Not applicable
Odor:	None	**Boiling Point:**	4046° F (2230° C) (Silica Gel)
Physical State:	Solid block	**Melting Point:**	3110° F (1710° C) (Silica gel)

PH:	Not applicable	**Solubility:**	Insoluble in water
Vapor Pressure:	Not applicable	**Specific Gravity:**	2.1

Section 10 – Stability and Reactivity

Stability: Stable

Conditions to avoid: Moisture and high humidity environments.

Incompatibility: Water, fluorine, oxygen difluoride, chlorine trifluoride

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur

Section 11 – Toxicological Information

This product and its components are not listed on the IARC, NTP or OSHA Carcinogen lists.

Animal Toxicology Tests for DOT Hazard classification
(Tests Conducted on finely ground silica gel)

1 - hour LC_{50} (rat) > 2 mg / l
48 - hour oral LD_{50} (rat) est. > 31,600 mg / kg
48 - hour dermal LD_{50} (rabbit) est. > 2,000 mg / kg
Considered an ocular irritant

Tests conducted on activated carbon
Oral LD_{50} > 5 g / kg (rats)

Tests for FDA approval for use in foods LD_{50} (mice) 8,000 mg / kg (limit of test) (Silica gel)
LD_{50} (rats) 4,500 mg / kg (limit of test) (Silica gel)
6 months' feeding tests (rats) at levels up to 10 % of the diet produced no effects. (Silica gel)

Human Toxicology Silica gel is a synthetic amorphous silica not to be confused with crystalline silica. Epidemiological studies indicate low potential for adverse health effects. In the activated form, silica gel acts as a desiccant and can cause a drying irritation of the mucous membranes and skin in cases of severe exposure. Multisorb Technologies Inc. knows of no medical conditions that are abnormally aggravated by exposure to silica gel. The primary route of entry is inhalation of dust.

Tests conducted on activated carbon
No data is available

Section 12 – Ecological Information

Not known to have any adverse effect on the aquatic environment. Silica gel and activated carbon are insoluble and non-toxic.

Section 13 – Disposal Information

Disposal Information If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Materials of a hazardous nature that contact the product during normal use may be retained on the product. The user of the product must identify the hazards associated with the retained material in order to assess the waste disposal options. Dispose according to federal, state and local regulations.

Section 14 – Transportation Information

U.S. Department of Transportation Shipping Name: Not classified as a hazardous material. Not regulated.

Section 15 – Regulatory Information (Not meant to be all inclusive - selected regulations represented)

TSCA Listed: Yes (Silica gel & activated carbon)

DSL/NDSL (Canadian) Listed: Yes (Silica gel & activated carbon)

OSHA: TWA 20 mppcf (80 mg / m^3 % SiO_2) (Silica gel)
TWA 15 mg / m^3 (total) % TWA 5 mg / m^3 (respirable dust) (Activated carbon)

NIOSH: REL TWA 6 mg / m^3 IDLH 3,000 mg / m^3 (Silica gel)
Animal tests conducted in 1976 - 1978. 18 month exposure at 15 mg / m^3 showed silica deposition in respiratory macrophages and lymph nodes, minimum lung impairment, no silicosis.

EPA: This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under 313 of Title III SARA.

ACGIH: TLV - 10 mg / m^3 (Silica gel)

Food Chemical Codex: Silica gel is approved for functional use in foods.

USDA: Silica gel is cleared for certain uses in salt and seasonings, and in curing mixtures for meat and poultry products.

FDA: Silica gel has been cleared for certain uses in foods per 21 CFR 160.105, 160.185 and 172.480

DOT: Neither silica gel or activated carbon are classified as a hazardous material.

Section 16 – Other Information

HMIS – Hazardous Materials Identification System

HMIS Rating	
Health	0
Flammability	0
Reactivity	0

0 - minimal hazard, 1 - slight hazard, 2 - moderate hazard, 3 - serious hazard, 4 - severe hazard

This MSDS was prepared by: George E. Mckedy
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This data and recommendations presented in this data sheet concerning the use of our product and the materials contained therein are believed to be correct but does not purport to be all inclusive and shall be used only as a guide. 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 is beyond our control, no guarantee, expressed or implied, is made and no responsibility assumed for the use of this material or the results to be obtained therefrom. Information on this form is furnished for the purpose of compliance with Government Health and Safety Regulations and shall not be used for any other purposes. Moreover, the recommendations contained in this data sheet are not to be construed as a license to operate under, or a recommendation to infringe, any existing patents, nor should they be confused with state, municipal or insurance requirements, or with national safety codes.