



MATERIAL SAFETY DATA SHEET

SECTION I GENERAL INFORMATION

Manufacturer: Chesapeake Specialty Products, Inc.
5055 North Point Boulevard
Baltimore, MD 21219

Creation Date: November 1985
Review Date: June 2010

For Additional Information, contact:
Occupational Health & Safety Division
(410) 388-5055

MSDS Code: A190

SECTION II PRODUCT IDENTIFICATION

Product Name:
SphereOX[®]
Synonym(s):
NA

Formula:
NA
Chemical Family:
Metal Oxide

SECTION III TYPICAL CHEMICAL COMPOSITION (1)

Hazardous Ingredients

Permissible Air Level (3)

<u>Ingredient (2)</u>	<u>CAS No.</u>	<u>Wt. %</u>	<u>OSHA PEL</u>	<u>ACGTH TLV</u>
Iron Oxides - FeO Fe ₂ O ₃ , and Fe ₃ O ₄ Oxide Fume as Fe	1309-38-2	98 TO 99.5	NE 10(4)	NE 5(4)
Manganese -Mn	7439-96-5	0.51	NE	NE
Carbon - C	7440-44-0	0.07	NE	NE

May contain other trace elements such as Aluminum, CAS No. 1744-28-1; Calcium, CAS No. 7440-70-2; Copper, CAS No. 7440-50-8; Lead CAS No. 7439-92-1; Magnesium, CAS No. 1309-48-4; Nickel, CAS No. 7440-02-0; Silicon, CAS No. 7440-21-3; Tin, CAS No. 7440-31-5; Zinc, CAS No. 7440-66-6; and Zirconium, CAS No. 7440-67-7; Titanium (TiO₂), CAS No. 1346-67-7, Chromium (Cr₂O₃), CAS No. 1308-38-9, Sulfur, CAS No. 7704-34-9; typically less than 0.1% by weight.

SECTION IV **PHYSICAL DATA**

Physical State:
Solid
Appearance and Odor:
Black powder, predominantly spherical; odorless
Boiling Point:
NA
Melting Point:
2800 F
Solubility in Water:
Insoluble

Bulk Density:
180 lbs./ft.³
Vapor Pressure:
NA
Vapor Density:
NA
Evaporation Rate:
NA
% Volatile by Volume:
NA

pH: N/A

Particle Size Distribution:
90% of the particles are greater than 53 microns in diameter. Mean particle size is 180 microns.

SECTION V **FIRE AND EXPLOSION HAZARD DATA**

Flash Point (Method):
NA
Autoignition Temperature:
NA

Lower Explosive Limit:
NA
Upper Explosive Limit:
NA

Fire Hazard:
Potential for ignition is very low and would only occur under conditions of being densely packed and of being exposed to excessive heat, spark, or flame. If burning were to occur, it would proceed very slowly. A mild fire or explosion hazard may be created by the fine dust that may result in contained space. Use Class D extinguishing agents or dry sand to exclude air. Do not use liquids or foam.

Explosive Hazards:
NA

Extinguishing Media:
Graphite, dolomite, salt, or sand.

Special Fire fighting Procedures:
Use care when applying dry powder extinguishing media so as to minimize the generation of airborne or dispersed dusts.

Unusual Fire and Explosion Hazards: NA

SECTION VI **REACTIVITY DATA**

Stability:
Stable
Incompatibilities (Materials to avoid):
Mineral acids
Hazardous Thermal Decomposition Products:
None expected
Polymerization:
Will not occur

SECTION VII HEALTH HAZARD DATA

Health Effects/Signs and Symptoms:

Long-term exposure to iron oxide fumes or dusts has been associated with a benign lung condition known as siderosis which is observable as an x-ray change. No physical impairment of lung function has been linked to siderosis.

Usual Route(s) of Entry:

Inhalation (if airborne dusts are generated)

Medical Conditions Possibly Aggravated:

Chronic diseases or disorders of the respiratory system.

Carcinogen Information:

Not considered to be a carcinogen

SECTION VIII FIRST AID AND MEDICAL EMERGENCY PROCEDURES

Eye Contact:

Not anticipated to pose an acute or significant eye contact hazard. In event of irritation flush eyes with running water, have particles removed from eyes by qualified medical person.

Skin Contact:

Not anticipated to pose an acute or significant skin contact hazard

Inhalation:

Not anticipated to pose an acute or significant inhalation hazard

Ingestion:

Not considered to be an ingestion hazard

Engineering Controls (Ventilation, etc.):

Ventilation should be sufficient to maintain dust levels below the applicable exposure limit for nuisance dust

Work Practices (Handling and Storage):

Use in such a manner as to avoid creating large amounts of dust. If the dust created exceeds OSHA PEL's indicated in section II a NIOSH approved respirator should be worn.

Eye Protection:

Safety glasses or goggles are recommended when dust levels are excessive

Skin Protection:

Gloves and long-sleeve clothing are recommended when dust levels are excessive

Respiratory Protection:

If ventilation does not control exposure levels below the applicable exposure limit for nuisance dust, a NIOSH-approved respirator for dusts should be worn

SECTION IX ECOLOGICAL - SPILL, LEAK AND DISPOSAL INFORMATION

This product is not considered a hazardous waste under EPA waste regulations.

Procedures to Follow if Material is Released or Spilled:

Spilled material should be swept or vacuumed into appropriate containers

Waste Disposal Methods:

Landfill disposal and other methods must be disposed/recycled in accordance with local, state and federal regulations.

Wastes may be recovered for future use.

SECTION X TRANSPORTATION

DOT Classification- not a regulated material

SECTION XI **ADDITIONAL OR MISCELLANEOUS INFORMATION**

This product does not meet the criteria of a hazardous chemical as defined by the Federal Occupational Safety and Health Hazard Communication Standard (29 CFR 1910.1200(c)). This form is being provided solely as general information and should not be construed as a determination that the product is a hazardous chemical. All sales of this product are subject to CHESAPEAKE'S Standard Terms and Conditions of Sale. CHESAPEAKE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR TRADE.

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Footnotes:

- (1) Concentrations may vary somewhat between batches or lots. Where possible, a concentration range is indicated. Occasionally, however, levels may even fall outside of the usual concentration ranges.
- (2) Common names, if applicable, appear in parentheses following the chemical names.
- (3) All values, unless otherwise specified, refer to 8-hour time-weighted average concentrations and units are in mg/M.
- (4) Use of the PEL or TLV for iron oxide (Fe₂O₃) fume is recommended.

Abbreviations:

- NA = Not Applicable
- NE = Not Established
- UK = Unknown (No applicable information was found)
- GT = Greater Than
- LT = Less Than