



# MATERIAL SAFETY DATA SHEET

## SECTION I – PRODUCT IDENTIFICATION

Product Name: Xcluder

Manufacturer: Global Material Technologies

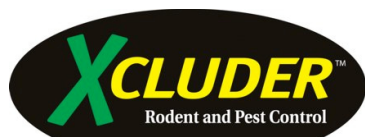
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## SECTION II – HAZARDOUS INGREDIENTS

These components may appear in some or various combinations in any particular Xcluder product type.

| COMPONENT                      | %          | CAS NUMBER |                 |
|--------------------------------|------------|------------|-----------------|
| <b>FOR METAL COMPONENT</b>     |            |            |                 |
| Aluminum (Al)                  | < 3.5      | 7429-90-5  |                 |
| Arsenic (As)                   | 0          | 7440-38-2  |                 |
| Barium (Ba)                    | 0          | 7440-39-3  |                 |
| Bismuth (Bi)                   | < .3ppm    | 7440-69-6  |                 |
| Boron (B)                      | < 0.010    | 7440-42-8  |                 |
| Cadmium (Cd)                   | 0          | 7440-43-9  |                 |
| Calcium (Ca)                   | < 0.010    | 7440-70-2  |                 |
| Carbon (C)                     | < 0.20     | 1333-86-4  | As Carbon Black |
| Chromium (Cr)                  | < 30.0     | 7440-47-3  |                 |
| Cobalt (Co)                    | > 30.0     | 7440-48-4  |                 |
| Copper (Cu)                    | < 34.0     | 7440-50-8  | Dust            |
| Iron (Fe)                      | < 85.0     | 7439-8-6   |                 |
| Lead (Pb)                      | < 0.006    | 7439-92-1  |                 |
| Manganese (Mn)                 | < 10.0     | 7439-96-5  |                 |
| Mercury (Hg)                   | 0          | 7439-97-6  |                 |
| Molybdenum (Mo)                | < 18.0     | 7439-98-7  | Insol. Cmpd     |
| Nickel (Ni)                    | < 80.0     | 7440-02-0  |                 |
| Nitrogen (N)                   | < 0.25     | 7737-27-9  |                 |
| Selenium (Se)                  | < 3ppm     | 7782-49-2  |                 |
| Silicon (Si)                   | < 4.50     | 7440-21-3  | Respirable Dust |
| Sulfur (S)                     | < 0.40     | 7704-34-9  |                 |
| Phosphorus (P)                 | < 0.06     | 7723-14-0  |                 |
| Titanium (Ti)                  | < 3.25     | 7440-32-6  |                 |
| Tungsten (W)                   | < 6.50     | 7440-33-7  | Insol. Cmpd     |
| Vanadium (V)                   | < 0.50     | 1314-62-1  |                 |
| Tantalum (Ta)                  | < 5.50     | 7440-25-7  |                 |
| <b>FOR NON-METAL COMPONENT</b> |            |            |                 |
| Titanium Dioxide               | <1         | 13463-67-7 |                 |
| Carbon Black                   | 0-3        | 1333-86-4  |                 |
| Fiber Lubricants               | 0.02 – 1.0 |            |                 |
| Polyethylene Terephthalate     | 89-99.9    | 25038-59-9 |                 |



### **SECTION III – PHYSICAL DATA**

#### **FOR METAL COMPONENT:**

Melting Point: 2500 Degrees F – 2800 Degrees F  
Density: .28 lb/cu. In.  
Flash Point: N/A  
Boiling Point: N/A  
Solubility in Water: Insoluble  
Vapor Pressure: N/A  
Vapor Density: N/A  
Evaporation: N/A  
% Volatiles by Volume: N/A  
Appearance and Odor: Solid, Odorless Metal

#### **FOR NON-METAL COMPONENT:**

Melting Point: 240-260°C (464 – 500°F)  
Specific Gravity: 1.38  
Form: Fiber  
Color: May vary depending on product type  
Odor: Odorless  
% Volatiles: 3%. Only finish will volatilize below melting point.

### **SECTION IV – FIRE AND EXPLOSION DATA**

Flash Point: 1000° F, Not applicable. Material will burn in a fire.  
Extinguishing Media: Water, CO2, Dry Chemicals, Foam-Fog are all effective.  
Fire Fighting Instructions: Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.  
FIRE AND EXPLOSION HAZARDS: Hazardous gases/vapors produced in fire are: aldehydes, ethanol, methanol, acetic acid, and acetone. Combustion products are similar to those of other organic materials composed of the same elements.

### **SECTION V – REACTIVITY DATA**

Solubility: Insoluble in water and alkalies, corrodes in acids and certain salts  
Hazardous Decomposition Products: Metal Fumes

### **SECTION VI – HEALTH HAZARDS INFORMATION**

|                     |   |                     |   |
|---------------------|---|---------------------|---|
| NFPA RATING: Health | 0 | HMIS RATING: Health | 0 |
| Fire                | 1 | Fire                | 1 |
| Instability         | 0 | Instability         | 0 |

Potential Health Effects: Product may contain surface-applied fiber lubricants that may cause the skin to dry out. Susceptible individuals may develop rash or other symptoms.



## **SECTION VII – EMERGENCY AND FIRST AID PROCEDURES**

### **Routes of Exposure:**

**Skin Contact:** The fiber is not likely to be hazardous by skin contact, but cleansing skin after use is advisable. Use gloves because material can poke skin.

**Inhalation:** No specific intervention is indicated. Consult a physician if necessary.

**Skin Absorption:** None known

**Eye Contact:** Fibers or fiber dust may cause irritation or scratch the surface of the eyes. Use protective goggles or glasses. In case of contact, immediately flush eyes with plenty of water or at least 15 minutes. Call a physician.

**Ingestion:** No specific intervention is indicated, as fiber is not likely to be hazardous by ingestion. Consult a physician if necessary.

**Acute Health Hazards:** None known

**Chronic Health Hazards:** None known

### **Emergency & First Aid Procedures:**

**Eyes:** Flush with water to remove particles.

**Skin:** Wash off with flowing water. May need to use tweezers if fibers embed in skin.

**Inhalation:** Remove to fresh air if effects occur.

**Ingestion:** No treatment required (no harm).

## **SECTION VIII – SPILL OR LEAK PROCEDURES**

**Waste Disposal Method:** Dispose of in accordance with applicable governmental non-hazardous solid waste regulations.

## **SECTION IX – SPECIAL PROTECTION INFORMATION**

No toxic effects are expected from the alloy in the inert solid form. Excessive inhalation of fumes or dusts from burning, welding, grinding, and cutting can produce an acute reaction known as metal fume fever. Nickel and chromium must be considered possible carcinogens under OSHA 29CFR1910.1200. However, studies of workers melting or working alloys containing these elements have been found to have no increased risk of cancer.

## **SECTION X – ADDITIONAL INFORMATION AND PRECAUTIONS**

- The metal component is free of the following substances: Hexavalent chromium (Cr(VI)), Polybrominated biphenyls (PBBs), and Polybrominated diphenyl ethers (PBDEs).