

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION



Great Lakes Orthodontics
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Product Name: Zinc Pellets (Zinc cut wire shot)
Product Number: 010-125

Effective Date: 1/7/15

SECTION 2. HAZARDOUS IDENTIFICATION

- Under normal handling conditions the solid alloy presents no significant health hazards. Processing of the alloy by dust or fume producing operation (blasting, grinding, buffing, welding, heating, etc.) may result in the potential airborne metal particulates or fume. The exposure levels in section II are relevant to fumes and dusts.

Potential Health Effects:

Primary Routes of Entry

- Inhalation
- Skin Contact
- Ingestion

Medical Conditions Aggravated by Exposure

- Persons with a predisposition to respiratory disorders may be adversely affected by particulates or respiratory irritants generated during the manufacturing process.

Human Effects and Symptoms of Overexposure:

General Effects of Exposure

Inhalation may cause nose and throat irritation and metal fume fever and prolonged contact may cause dermatitis, discoloration of skin, hair, and teeth. Acute exposure to zinc dust or fume may cause irritation to the eyes, nose, and throat; leave a metallic taste in the mouth. Result in metal fume fever or produce flu-like symptoms. .

- Cadmium – Loss of smell ulceration of the nose, shortness of breath (emphysema), kidney damage, and mild anemia. It has also been reported to cause an increase incidence of cancer of the prostate in men.
- Copper – No chronic debilitating symptoms indicated.
- Iron – Siderosis
- Lead – Anemia, urinary dysfunction, metallic taste in mouth, weakness, constipation, nausea, nervous disorder.
- Zinc – Chromosomal anomalies in leukocytes reported. Arthritis, lameness, and inflammation of the gastrointestinal tract reported in animal studies.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Components</u>	<u>CAS #</u>	<u>OSHA PEL</u> <u>(MG/M³) TWA</u>	<u>ACGIH TLV</u> <u>(MG/M³)TWA</u>	<u>%</u>
Zinc	7440-66-6	5.0 as fume	5.0 as fume	98.99.99
Cadmium	7440-43-9	0.05 Dust or Fume	0.05 Dust or Fume	0 - .007
Copper	7440-50-8	1.0 Dust or .010 Fume	1.0 Dust or .010 Fume	0 - .002
Iron	7439-89-6	5.0 as Dust or Fume	5.0 as Dust or Fume	0 - .013
Lead	7439-92-1	0.05 Dust or Fume	0.05 Dust or Fume	0 - .006

SECTION 4. FIRST AID MEASURES

Eye Contact

Depending on the type and nature of exposure, relief may be obtained by fresh air or rinsing eyes with clean water. Obtain immediate medical attention.

Skin Contact

Abrasions and cuts should be washed and closed by a clean compress. Immediate medical attention should be sought. Should skin irritation occur, wash the affected area with mild soap and rinse with clean warm water. Obtain immediate medical attention.

Inhalation

Remove employee from exposure to dust or fume into fresh air. If breathing is difficult, administer artificial respiration or oxygen. Seek immediate medical attention.

Ingestion

Ingestion of significant amounts of Zinc is unlikely. Seek medical attention if a large quantity of this material is ingested.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Special mixtures of Dry chemicals or Sand

Special Fire Fighting Procedures

Fire fighters should wear NISO/MSHA self-contained breathing apparatus and protective clothing.

Unusual Fire / Explosion Hazards

Solid massive form is not combustible. Fire and explosion hazards are moderate when material is in the form of dust and exposed to heat, flames, chemical reaction, or in contact with powerful oxidizers. Never use water as an extinguishing agent around molten metal. Water will react violently with any molten metal. Small chips, fine turnings, and dust may ignite readily. Do not use halogenated extinguishing agents on small chips or fines. Dust clouds may be explosive. Molten metal may react violently with water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Spills should be cleaned from floors immediately.

SECTION 7. HANDLING & STORAGE

Handling / Storage Precautions

Be alert to sharp edges and unsecured lifts. Observe maximum floor loading as shot is very dense and weights 245lbs per cubic foot.

Further Info on Storage Conditions

None.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Measures

Additional air make up systems may be required if local exhaust or ventilation systems are not sufficient to maintain exposure levels to contaminants below prescribed limits.

Respiratory Protection

When inhalation controls are not sufficient to reduce the exposure below the applicable exposure limit then use OSHA/NIOSH approved respiratory protection within the limitations of the respirator.

Hand Protection

Use appropriate protective gloves to protect against cutting edges.

Eye Protection

Eyes should be protected by using safety glasses, goggles, helmet, and face shield as appropriate to the operation.

Skin and Body Protection

Use appropriate clothing to protect against cutting edges.

Additional Protective Measures

Appropriate heat shielding garments should be used for activities using or generating heat. Cut wire shot is a safety hazard under foot due to its spherical shape.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Form** – Solid metal
- **Appearance** – Cylindrical in shape
- **Color** – Bluish / white solid in color at room temperature.
- **Odor** – Odorless
- **Solubility in Water** – Insoluble
- **Specific Gravity** – 7.14g/cm³
- **Melting Point** – 788 °F
- **Boiling Point** – 1665 °F

Not applicable: Vapor Pressure, Evaporation, % Volatiles by Volume, Flash Point, Flammable Limits, Auto Ignition Temp

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Hazardous polymerization does not occur.

Stability – Stable

Materials to Avoid – Acid, bases, and oxidizers

Conditions to Avoid – Stable under normal conditions of transport. Molten metal may react violently with water.

Hazardous Decomposition Products – Metal fume, Zinc Oxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Not applicable

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Not applicable

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

Not applicable

SECTION 15. REGULATORY INFORMATION (non-mandatory)

Not applicable

SECTION 16. OTHER INFORMATION (non-mandatory)

HMIS Rating:

- **Health** – 0
- **Flammability** – 0
- **Reactivity** – 2

0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe

* = Chronic Health Hazard