SAFETY DATA SHEET

SECTION 1. INDENTIFICATION

Great Lakes Orthodontics
200 Cooper Ave
Tonawanda, NY 14150

716-871-1161
800-828-7626
CHEMTREC: 800-424-9300

Product Name: Stainless Steel
Product Number: 265-029, 265-030, 265-031, 265-032, 265-033, 265-034, 265-035, 265-036, 265-037, 265-038, 265-039, 265-040

Effective Date: 4/1/13

SECTION 2. HAZARDOUS IDENTIFICATION

- Solid metallic products are classified as "articles" and are not hazardous materials in their solid form under the definitions of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Articles manufactured from these solid products are generally considered non-hazardous as well. However, such as but not limited to: burning, melting, cutting, brazing, grinding, machining, milling, and welding.

Potential Health Effects:

Primary Routes of Entry

- Inhalation

Human Effects and Symptoms of Overexposure:

Acute Skin

Contact with dusts may cause irritation or sensitization leading to dermatitis.

Acute Ingestions

Nausea or vomiting may result from ingestion of dusts.

Acute Inhalation

Inhalation of high concentrations of fumes or dusts may result in irritation and / or sensitization of the respiratory track, nasal irritation, and metal fume fever.

Acute Eyes

Exposure to fumes and dusts can cause irritation and / or sensitization and conjunctivitis.

Chronic Effects or Exposure

Chronic Inhalation

Prolonged inhalation of dust or fume may cause lung, central nervous system, liver, kidney, and nasal cavity damage.

Chronic Eyes

Prolonged exposure to fumes and dust can cause severe irritation or sensitization leading to dermatitis.

Chronic Skin

Prolonged contact with dust may cause severe irritation or sensitization leading to dermatitis.

Chronic Ingestion

Nausea or vomiting may result from ingestion of dusts eye inflammation.

Carcinogenicity

No carcinogenic substances as defined by IARC, NTP and / or OSHA.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS #	%	OSHA PEL (mg/m^3)	ACGIH TLV (mg/m^3)
Iron	439-89-6	45 – 90	10 mg/m^3 Iron Oxide – Fume	10 mg/m^3 Iron Oxide – Dust & Fume
Nickel	7440-02-2	0 – 40	1 mg/m^3 Metal & insoluble Compound	1.5 mg/m^3 - metal 0.1 mg/m^3 - soluble compounds 0.2 mg/m^3 - insoluble compounds
Chromium	7440-47-3	10.5 – 30	1 mg/m^3 Metal & insoluble salt 0.5 mg/m^3 - CR (+3) AL 2.5 ug/m^3 - PEL 5.0	0.5 – metal & CR (+3) 0.05 mg/m^3 Cr (+6) water soluble compounds 0.10 mg/m^3 - Cr (+6) insoluble Compounds
Manganese	7439-96-5	0 – 15	5 mg/m^3 Ceiling	0.2 mg/m^3
Molybdenum	7429-98-7	0 – 5	5 mg/m^3 Soluble Compounds as MO 10 mg/m^3 Insoluble As MO	5 mg/m^3 Soluble compounds as MO 10 mg/m^3 Insoluble compounds as Mo
Copper				

SECTION 4. FIRST AID MEASURES

Eye Contact

In case of contact, flush eyes with plenty of lukewarm water.

Skin Contact

Cool melted product on skin with plenty of water. Do not remove solidified product. Get medical attention if thermal burn occurs.

Inhalation

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.

Ingestion

Get medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Water fog, Dry chemical, Carbon Dioxide (CO2)
Special Fire Fighting Procedures
Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
Unusual Fire / Explosion Hazards
Toxic and irritating gases / fumes may be given off during burning or thermal decomposition.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures
If molten, allow material to cool and place into an appropriate marked container for disposal. Sweep up and shovel into suitable containers for disposal.

SECTION 7. HANDLING & STORAGE

Storage temperature
Maximum: 49 °C (120.2 °F)
Storage period
Containers should be tightly closed to prevent contamination with foreign materials and moisture.
Handling / Storage Precautions
Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Avoid creating dust.
Further Info on Storage Conditions
Protect equipment (e.g.: storage bins, conveyors, dust collectors) with explosion vents.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Country specific exposure limits have not been established or are not applicable.

Industrial Hygiene / Ventilation Measures
General dilution and local exhaust as necessary to control airborne vapors, mists, dusts, and thermal decomposition products below appropriate airborne concentration standards / guidelines, especially during cutting, grinding, and high heat operations.
Respiratory Protection
In the case of dust or aerosol formation use respirator with an approved filter.
Hand Protection
Wear heat resistant gloves when handling molten material.
Eye Protection
Safety glasses with side-shields
Skin and Body Protection
No special skin protection requirements during normal handling and use.
Additional Protective Measures

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Purging's should be collected as small flat thin shapes or thin strands to allow for rapid cooling.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Form –** Solid
- **Appearance –** Sheets
- **Color –** Tint
- **Odor –** Odorless
- **PH –** Not Applicable
- **Flash Point -** > 450 °C (> 842 °F)
- **Lower Explosion Limit –** Not Established
- **Upper Explosion Limit –** Not Established
- **Vapor Pressure –** Not Applicable
- **Solubility in Water –** Insoluble
- **Auto-ignition Temperature -** > 450 °C (> 842 °F)
- **Decomposition Temperature –** Approximately 380 °C (716 °F)
- **Softening Point –** Begins at 70 °C (158 °F)
- **Bulk Density –** Approximately 608.7 kg/m3

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Hazardous polymerization does not occur.
Stability – Stable
Materials to Avoid – None known
Conditions to Avoid – None known
Hazardous Decomposition Products – By fire and thermal decomposition: Phenol, Carbon Oxides, Hazardous decomposition products due to incomplete combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity Data for Copolyester:
Acute oral toxicity

- LD60: > 3,200 mg/kg (Rat, Male)
- LD50: > 3,200 mg/kg (Mouse, Male)

Acute dermal toxicity

- LD50: > 1,000 mg/kg (Guinea Pig)

Skin Irritation

- Guinea pig, slightly irritating

Eye Irritation

- Rabbit, slightly irritating
- Guinea pig, non-irritating

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Ecological Data for Copolyester:

Acute and Prolonged Toxicity to Fish

- LC50: > 100 mg/l (Fathead minnow (Pimephales promelas), 96 h)

Acute Toxicity to Aquatic Invertebrates

- LC50: > 100 mg/l (Water flea (Daphnia magna), 96 h)

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method

Waste disposal should be in accordance with existing federal, state, and local environmental control laws.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

- **Land Transport (DOT):** Non - regulated
- **Sea Transport (IMDG):** Non – regulated
- **Air Transport (ICAO/IATA):** Non – regulated

SECTION 15. REGULATORY INFORMATION (non-mandatory)

United States Federal Regulations

OSHA Hazcom Standard Rating: Non-Hazardous

US. Toxic Substances Control Act: Listed on the TSCA Inventory

US. EPA Cercla Hazardous Substances (40 CFT 302): Components – None

SARA Section 311/312 Hazard Categories: Non-Hazardous under Section 311/312

US. EPA Emergency Planning and Community Right-to-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A):
Components – None

US. EPA Emergency Planning and Community Right-to-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) – Supplier Notification Required:
Components – None

US. EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII Hazardous Constituents (40 CFR 261): Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous.

State Right – To – Know Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the Safety Data Sheet may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

The concentrations reported below in units of parts per million (PPM) or parts per billion (ppb) are maximum values.

Massachusetts, New Jersey or Pennsylvania Right-To-Know Substance lists:

- **Weight Percent:** 1 – 100%
- **Components:** Copolyester
- **CAS – NO.:** CAS # is a trade secret

SECTION 16. OTHER INFORMATION (non-mandatory)

HMIS Rating:

- **Health –** 0
- **Flammability –** 1
- **Physical Hazard –** 0

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

* = Chronic Health Hazard