

Product Data Sheet - 0000001

- **Product name:** ClearBow
- **Product description:** Thermoplastic labial bow
- **Product uses:** Fabrication of custom made orthodontic appliances

Manufacturer

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Composition information

Material	CAS Number	%	OSHA PEL(mq/m³)	ACGIH TLV(mg/m3)
Food grade PET (Polyethylene Terephthalate)	25038-59-9			
Food grade Stainless steel 316				
• Iron	439-89-6	45-90	10 mg/m³ Iron Oxide — Fume	10 mg/m³ Iron Oxide — Dust & Fume
• Nickel	7440-02-2	0-40	1 mg/m³, metal & insoluble compounds	1.5 mg/m³ metal, 0.1 mg/m³, soluble compounds 0.2 mg/m³, insoluble compounds
• Chromium	7440-47-3	10	1 mg/m³, metal & insoluble salt 0.5 mg/m³, CR (+3) AL 2.5 ug/m³ / PEL 5.0 ug/m³ CR (+6)	0.5 , metal and CR (+3) 0.05 mg/m³, Cr (+6) water soluble compounds 0.10 mg/m³, Cr (+6) insoluble compounds
• Manganese	7439-96-5	5-30	5 mg/m³ Ceiling	0.2 mg/m³
• Molybdenum	7429-98-7	0-15	5 mg/m³ Soluble compounds as MO 10 mg/m³ Insoluble compounds as MO	5 mg/m³ Soluble compounds as 10 mg/m³ Insoluble compounds
• Copper	7440-50-8	0-5	0.1 mg/m³ fume 0.2 1.0 mg/m³, dust & mist	0.2 mg/m³ fume 1.0 mg/m³, dust & mist
• Silicon	7440-21-3	0-3	15mg/m³ Total Dust 5 mg/m³ Respirable dust	10 mg/m³ Total Dust
• Aluminum	7429-90-5	0-1	15mg/m³ Total Dust 5 mg/m³ Respirable dust	10 mg/m³ Total Dust 5 mg/m³ Welding Fume
• Cobalt	7440-48-4	0-1	0.05 mg/m³ Dust & Fume	0.02 mg/m³ Dust
• Vanadium	7440-62-2	Trace	0.5 mg/m³ vanadium pentoxide dust 0.1 mg/m³ vanadium pentoxide fume	0.05 mg/m³ vanadium pentoxide
• Tungsten	7440-33-7	Trace	15mg/m³ Total Dust 5 mg/m³ Respirable dust	1.0 mg/m³ 3 mg/m³ STEL Soluble 5.0 mg/m³ 10 mg/m³ STEL Insoluble
• Tantalum	7440-25-7	Trace	5 mg/m³ Metal & Oxide dust 10 mg/m³ STEL	5 mg/m³ Metal & Oxide dust
• Titanium	7440-32-6	0-1	15 mg/m³ Titanium Dioxide total dust	10 mg/m³ Titanium Dioxide total dust
• Lead	7439-92-1	Trace	0.05 mg/m³	0.05 mg/m³

Safety Aspects - Polyethylene Terephthalate in processed form (Plastic portion of the ClearBow assembly):

The portion of the labial bow made from PET will burn but is not highly flammable. Polyester resin presents no toxic hazards, either from skin contact or inhalation, under normal conditions. Contact with melted polymer should be avoided.

Melt Processing Health Effects: Molten plastic can cause severe burns. Processing fumes may cause irritation to the eyes, skin and respiratory tract, and in cases of severe overexposure, nausea and headache.

Medical Restrictions: There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing fumes.

FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if necessary.

Skin: The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

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

Inhalation: No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

For processing fume inhalation irritation, leave contaminated area and breathe fresh air. If coughing, difficult breathing or any other symptoms develop, seek medical attention at once, even if symptoms develop at a later time.

For skin contact with fume condensate, immediately wash thoroughly with soap and water. If irritation develops, seek medical attention.

Safety Aspects – Stainless steel wire in processed form (Coiltight-Joints):

Some hazardous elements of the steel wire can be emitted under certain processing conditions such as but not limited to: burning, melting, cutting, brazing, grinding, machining, milling, and welding.

Primary route of entry: Inhalation of dust or fume during welding, burning, melting, cutting, brazing, grinding, machining, milling, welding and other operations.

Effects of Overexposure: Stainless, as a solid, is not toxic and presents no health hazard.

Overexposure to dusts and or fumes which may result during processing can pose health hazards as defined below

Acute Effects of Overexposure:

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.

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

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

Ingestion: Nausea or vomiting may result from ingestion of dusts

Chronic Effects of Overexposure:

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

Eyes: Prolonged exposure to fumes and dusts can cause severe irritation, and or sensitization and conjunctivitis.

Skin: Prolonged contact with dusts may cause severe irritation or sensitization leading to dermatitis.

Ingestion: Nausea or vomiting may result from ingestion of dusts

Eye inflammation

First Aid Measures:

Eve Contact: Wash with copious amounts of water for 15 minutes to ensure that no articles remain in the eye. Seek medical advice if irritation persists

Skin Contact: If irritation develops, wash skin thoroughly with soap and water. Seek medical attention, if necessary.

Inhalation: Remove from dusty area to fresh air: if discomfort persists, consult physician. Ingestion: If significant amounts of dusts are ingested consult physician.

Unusual Fire and Explosion Hazards: Solid formed alloy does not constitute a fire or explosion hazard. However, finely divided, suspended particulates may present a fire and explosion hazard in the presence of an ignition source.