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: Leaf Gauge – Auto-clavable
Product Number: 056-045

Effective Date: 3/21/18

SECTION 2. HAZARDOUS IDENTIFICATION

- This film contains Barium Sulfate immobilized in the polymer matrix. Under normal use conditions, exposure is not expected. However, machining, grinding, or other dusting conditions should be monitored and respirable dust and particulate exposure maintained below established exposure limits.
- No adverse health effects have been attributed to polyester film. This product contains no component considered to be hazardous. No pictogram or signal word required.

Exposure Limits

	ACGIH TLV	**OSHA PEL**	
• Acetaldehyde	25 ppm (ceiling)	100 ppm TWA	
	ACGIH TWA	**OSHA PEL** (Respirable Fraction)	**OSHA PEL** (Total Dust)
• Barium Sulfate	10 mg/m3	5 mg/m3	15 mg/m3

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	**CAS #**
Acetaldehyde	75-07-0

Low levels of Acetaldehyde are present in the film. Under normal use conditions, release would be negligible.

SECTION 4. FIRST AID MEASURES

Not applicable.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Water spray, Foam, Dry chemical, Carbon Dioxide (CO2)

Special Fire Fighting Procedures

Film will burn if exposed to flame. Firefighters should protect themselves from hazardous decomposition and combustion products that may include acetaldehyde, carbon monoxide, and other toxic gases. Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to product of combustion exists.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Not applicable

SECTION 7. HANDLING & STORAGE

Handling / Storage Precautions

If the film could be subjected to conditions releasing acetaldehyde, then adequate ventilation should be used to stay below the established exposure limits, or self-contained breathing apparatus should be use.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional Protective Measures

Unwinding, winding, and passage of polyethylene terephthalate film through and over rollers will tend to generate a strong electrostatic charge on the web. Static discharge devices should be properly positioned at such points to eliminate the charge and to prevent uncontrolled discharge from the web. This particularly required in potentially explosive atmospheres and to protect personnel from the effect of a static discharge.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Appearance –** Film
- **Color –** White
- **Odor –** Odorless
- **Melting Point -** 250 °C
- **Decomposition Temperature –** above 250 °C
- **Specific Gravity –** 1.4 – 1.5

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Not applicable.
Stability – Stable and resistant to attack by oils, solvents, weak acids, and weak alkalis.
Materials to Avoid – Not applicable
Conditions to Avoid – Not applicable
Hazardous Decomposition Products – Not applicable.

SECTION 11. TOXICOLOGICAL INFORMATION

Not applicable

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method
Polyester film is not classified as a hazardous waste under the Resource Conservation and Recovery Act and unless prohibited by state or local regulation can be disposed of in a municipal landfill or incinerated.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

This product is not classified by the Department of Transportations as a hazardous material.

SECTION 15. REGULATORY INFORMATION (non-mandatory)

- This product is classified as an article under the TSCA.
- State RTK – MA, PA (Barium Sulfate, 7727-43-7)
- No components are listed on SARA 313
- Canada & Europe – Polyethylene terephthalate polymer is listed on the Canadian DSL and its reactants are listed on EINECS.

SECTION 16. OTHER INFORMATION (non-mandatory)

HMIS Rating:

- **Health –** 0
- **Flammability –** 1
- **Reactivity –** 0

0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe
* = Chronic Health Hazard

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: Leaf Gauge – (Nut & Bolt)
Product Number: 056-045

Effective Date: 3/21/18

SECTION 2. HAZARDOUS IDENTIFICATION

Potential Health Effects:

Primary Routes of Entry

- Inhalation
- Skin Contact
- Eye Contact
- Ingestion

Medical Conditions Aggravated by Exposure

- Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance / product. (See section #11). This product contains no component considered to be hazardous. No pictogram or signal word required.

Human Effects and Symptoms of Overexposure:

Skin

Irritation may be possible. Contact with molten product may cause thermal burns. The resin in pelleted form poses a low hazard.

Eyes

Irritation may be possible.

Inhalation

Irritation may be possible.

Ingestion

Irritation may be possible. May cause gastric disturbances.

Chronic Effects or Exposure

Repeated dose toxicity – no adverse effects have been reported in the processing and use of the product. No known chronic effects.

Carcinogenicity

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

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS #	Content W/W
Polyamide (PA 66)	32131-17-2	> 95.0%

SECTION 4. FIRST AID MEASURES

Eye Contact

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

Skin Contact

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

Inhalation

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

Ingestion

Ingestion is not likely in the available physical form. If ingested, seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Water spray, Dry powder, Foam, Carbon Dioxide (CO2)

Special Fire Fighting Procedures

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Unusual Fire / Explosion Hazards

No particular hazards known.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

This product is not regulated by RCRA. This product is not regulated (CERCLA ("Superfund"). Reclaim for processing if possible. Sweep / shovel up. Place into suitable containers for reuse or disposal in a licensed facility.

SECTION 7. HANDLING & STORAGE

Handling Precautions

Protection against fire and explosion: no explosion proofing necessary.

Storage Precautions

Keep container tightly closed. Avoid deposition of dust. Protect against moisture.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Industrial Hygiene
Wash soiled clothes immediately.
Ventilation Measures
Provide local exhaust ventilation to control dusts / vapors.
Respiratory Protection
Wear a NIOSH certified (or equivalent) particulate respirator. Wear respiratory protection if ventilation is inadequate.
Hand Protection
Wear gloves to prevent contact during mechanical processing and/or hot melt conditions.
Eye Protection
Tightly fitting safety goggles (chemical goggles).
Skin and Body Protection
Wear protective clothing to prevent contact during mechanical processing and/or hot melt conditions.
Additional Protective Measures
Avoid inhalation of dust.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Appearance –** Pellets
- **Color –** Various, depending on the colorant
- **Odor –** Odorless
- **PH Value –** Not applicable
- **Flash Point -** > 400 °C
- **Melting Point –** approximately 260 °C (DIN 53765)
- **Boiling Range –** The substance / product decomposes therefore not determined.
- **Self-ignition Temperature –** not self-igniting
- **Auto-ignition –** Not applicable
- **Vapor Pressure –** Not applicable
- **Relative Density –** 1.05 – 1.25
- **Bulk Density –** 500 – 800 kg/m3
- **Solubility in water –** insoluble

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – This product is chemically stable.
Stability – Stable.
Materials to Avoid – Strong oxidizing agents, acids, bases.
Conditions to Avoid – Avoid prolonged exposure to extreme heat.
Hazardous Decomposition Products – Possible thermal decomposition products: Hydrogen Cyanide, Carbon Monoxide, and Ammonia.
Thermal Decomposition - > 300 °C May decompose if overheated and/or subjected to prolonged heating.

SECTION 11. TOXICOLOGICAL INFORMATION

- Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Aquatic Toxicity
This product has not been tested. The statement has been derived from the structure of the product. There is a high probability that the product is not acutely harmful to aquatic organisms.
Degradation / Environmental Fate
Experience shows this product to be inert and non-degradable.
Bioaccumulation
The product will not be readily bioavailable due to its consistency and insolubility in water.

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method
Incinerate in a licensed facility. Do not discharge substance / product into sewer system. Dispose in accordance with national, state, and local regulations.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

- **Land Transport (DOT):** Not classified as a dangerous good under transport regulations.
- **Sea Transport (IMDG):** Not classified as a dangerous good under transport regulations.
- **Air Transport (ICAO/IATA):** Not classified as a dangerous good under transport regulations.

SECTION 15. REGULATORY INFORMATION (non-mandatory)

Federal Regulations

- Chemical – TSCA, US released / listed
- EPCRA 311/312 (Hazard Categories): Not hazardous

SECTION 16. OTHER INFORMATION (non-mandatory)

HMIS Rating:

- **Health –** 1
- **Flammability –** 1
- **Reactivity –** 0

0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe
* = Chronic Health Hazard