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: Cheek Retractors, Safety Latch, Connecting Arm Insert, Flexible Connector
Product Number: 300-400, 300-401, 300-402, 300-405, 300-406, 300-414, 300-417

Effective Date: 2/21/18

SECTION 2. HAZARDOUS IDENTIFICATION

According to Regulation 2012 OSHA Hazard Communication Standard 29 CFR Part 1910.1200
This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS #	Percent %
Formaldehyde	50-00-0	Trace level contaminant
Glass oxide; Fiberglass continuous filament	65997-17-3	5 – 60

This product may contain proprietary ingredients. This is a polymeric material. Any hazardous constituents are wetted by the polymer system, and therefore are unlikely to present exposure under normal conditions of processing and handling.

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.

Note to Physician

This product is essentially inert and nontoxic. However, if it is overheated or burns, gases such as Carbon Monoxide and formaldehyde may be released. Those exposed to off gases may need to have their arterial blood gases and Carboxyhemoglobin levels checks. If the Carboxyhemoglobin levels are normal and the exposure occurred in an enclosed space, asphyxia (Carbon Dioxide replacing oxygen) is a possibility. Formaldehyde is a respiratory irritant gas. If patients may have inhaled high concentrations of irritating fumes they should be monitored for delayed onset pulmonary edema.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Foam, Dry Powder, Dry Chemical, Water

Extinguishing media which must be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

Special Fire Fighting Procedures

Wear self-contained breathing apparatus and protective suit.

Unusual Fire / Explosion Hazards

Under conditions giving incomplete combustion, hazardous gases produced may consist of Carbon Monoxide, Carbon Dioxide (CO2), Formaldehyde vapors, and Hazardous combustion products.

Environmental Precautions

Dike and collect water used to fight fire.

Other Information

Keep people away from and upwind of fire. Dust can form an explosive mixture in air.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid dust formation. Do not breathe dust. Remove all sources of ignition.

Environmental Precautions

No special environmental precautions required.

Methods of Cleaning Up

Use mechanical handling equipment. Dispose of in accordance with local regulations.

SECTION 7. HANDLING & STORAGE

Handling Precautions

Do not handle hot or molten material without appropriate protective equipment. Do not exceed recommended process temperatures to minimize release of decomposition products. Maintain good housekeeping in work areas. Provide for appropriate exhaust ventilation and dust collection at machinery.

Protection – Fire and Explosion

Do not smoke in areas where polymer dust is present. Appropriate measures should be taken to control the generation and accumulation of dust during conveying and processing operations.

Storage Precautions

Keep in a dry, cool place. Maintain dryness or resin. To maintain product quality, do not store in heat or direct sunlight. Maximum storage temperature 40 °C.

Incompatible Products

Strong acids, oxidizing agents, and Polyvinyl Chloride.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures

General – may not be adequate as the sole means to control employee exposure. Local Exhaust – recommended when appropriate to control employee exposure to dust or process vapors.

Protective Equipment

A safety shower and eyebath should be readily available.

General Advice

Do not breathe dust. Avoid contact with skin and eyes.

Respiratory Protection

In case of insufficient ventilation wear suitable respiratory equipment.

Eye / Face Protection

Safety glasses with side-shields. Safety goggles.

Skin Protection

When thermal or melt processing, wear long pants, long sleeves, well insulated gloves, and face shield when there is a chance of contact.

Operations involving grinding and machining of parts should be reviewed to assure that particulate levels are kept below recommended standards.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Odor –** Odorless
- **Flash Point -** > 93 °C (> 200 °F) Tag closed cup.
- **Vapor Pressure –** Not determined
- **Solubility in Water –** Insoluble
- **Specific Gravity (H2O – 1) –** 1.3 to 1.65

Not applicable – Boiling Point, Melting Point, Vapor Density, Evaporation Rate.

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Incompatable with storng acids, and oxidizing agents, Polyvinyl chloride.
Stability – Stable under normal conditions.
Materials to Avoid – Strong acids, oxidizing agents, and Polyvinyl chloride..
Conditions to Avoid – Flame. Do not allow mixing of this material with PVC, other halogen containing materials, and partially and/or fully crosslinkable thermoplastic elastomers. Avoid temperatures above 238 °C / 460 °F
Hazardous Decomposition Products – Trioxane, formaldehyde, paraformaldehyde, and formic acid.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects
Routes of Exposure – Skin, eyes, inhalation, and ingestion.

Immediate Effects
Eyes
Resin particles, like other inert materials, are mechanically irritating to eyes.
Inhalation
Overheating in processing may generate hazardous, irritating vapors. Dust irritating to respiratory tract.
Ingestion
Low toxicity by this route is expected based on the biological activity of high molecular weight polymers.
Other
Formaldehyde, which is a degradation product is listed as a potential cancer hazard by OSHA, a known human carcinogen by the International Agency for Research on Cancer (IARC, Group 1) and is listed in the 12th Report of Carcinogens (ROC) released by the National Toxicology Program (NTP). Formaldehyde should not pose a risk if exposures are kept below the OSHA Permissible Exposure Limit.

Medical conditions which may be aggravated by exposure
No specific information available on product. Off gases which may be released if overheated, may affect those with chronic diseases of the respiratory system.

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Ecotoxicity
The effects of resin pellets on the wildlife that may ingest them is not well understood. In the case of seabirds, some marine biologists believe that the fowl may not be able to pass plastic pellets through their digestive tracts. Thus, large quantities of ingested pellets may cause intestinal blockage, false feelings of satiation or reduction in absorption of nutrients, causing malnutrition and starvation. The goal of SPI's Operation Clean Sweep is zero loss of pellets into the environment.

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Disposal Considerations

Recycling is encouraged. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

This product as shipped is not a RCRA hazardous waste under present EPA regulations.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

Not regulated

SECTION 15. REGULATORY INFORMATION (non-mandatory)

Not a controlled product.

SECTION 16. OTHER INFORMATION (non-mandatory)

NFPA

Health – 1
Flammability – 1
Instability - 0

HMIS

Health – 1
Flammability – 1
Physical Hazard - 0

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: Silicone Tubing
Product Number: 300-400, 300-401, 300-412

Effective Date: 7/24/13

SECTION 2. HAZARDOUS IDENTIFICATION

Potential Health Effects:

Primary Routes of Entry

- Inhalation
- Skin Contact
- Eye Contact

Medical Conditions Aggravated by Exposure

- None.

Human Effects and Symptoms of Overexposure:

Skin

A single prolonged exposure (24 to 48 hours) causes no known adverse effect. Washing after meal time and end of shift is adequate.

Ingestions

Small amounts transferred to the mouth by fingers during use, etc. should not injure. Swallowing large amounts may cause digestive discomfort.

Eyes

Direct eye contact may cause temporary discomfort with a mild redness and dryness similar to windburn.

General Effects of Exposure

None.

Carcinogenicity

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

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4. FIRST AID MEASURES

Skin

No first aid should be needed.

Ingestions

No first aid should be needed.

Inhalation

No first aid should be needed.

Eyes

Immediately flush with water.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Water, Water Fog or Spray, Foam, Dry chemical, Carbon Dioxide CO2

Special Fire Fighting Procedures

Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. If large amount involved, evacuate area.

Unusual Fire / Explosion Hazards

None.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Collect and contain for salvage or disposal. Observe all personal protection equipment recommendations described in section 4 and 8. Local, state, and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the regulations are applicable.

SECTION 7. HANDLING & STORAGE

Handling / Storage Precautions

No special precautions

Further Info on Storage Conditions

None.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Measures
None should be needed. Mechanical ventilation recommended.
Respiratory Protection
None should be needed.
Eye Protection
Use proper protection; safety glasses as a minimum.
Additional Protective Measures
None.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Odor –** Odorless
- **Color –** Translucent white
- **Flash Point** – 600 °F (315 °C) / COC
- **Upper and Lower Control Limits** – Not determined
- **Solubility in Water –** Insoluble in water

Not applicable – Boiling Point, Vapor Pressure, Vapor Density, Specific Gravity, Melting Point, Evaporation Rate

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Hazardous polymerization does not occur.
Stability – Stable
Materials to Avoid – None known.
Conditions to Avoid – When heated to temperatures above 150 °C in the presence of air, product can form formaldehyde vapors. Formaldehyde is a potential cancer causing hazard, a known skin and respiratory sensitizer, and an irritant to eyes, nose, throat, skin, and digestive system. Safe handling conditions may be maintained by keeping vapor concentrations within the OSHA Permissible Exposure Limit for formaldehyde.
Hazardous Decomposition Products – None.

SECTION 11. TOXICOLOGICAL INFORMATION

Not applicable

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method
Not applicable

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

Not applicable

SECTION 15. REGULATORY INFORMATION (non-mandatory)

Not applicable

SECTION 16. OTHER INFORMATION (non-mandatory)

Not applicable

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: C-Plates for High Pull & Variable Pull Head caps, Y Connector Adapter, Tongue Guard / Saliva Ejector, Quick Fit (snap on hooks, snap on tubes, buckle, and straps),

Product Number: 300-100, 300-101, 300-102, 300-103, 300-104, 300-105, 300-106, 300-107, 300-108, 300-132, 300-133, 300-400, 300-401, 300-403, 300-408, 300-409, 300-411, 300-413, 300-419, 300-420

Effective Date: 2/19/18

SECTION 2. HAZARDOUS IDENTIFICATION

Classified Hazards
No classified hazards.

Hazards Not Otherwise Classified (HNOC)
PHNOC – May form combustible dust concentrations in enclosed spaces during handling.
HHNOC – None known.

Signal Word
DANGER – May form combustible dust concentrations in enclosed spaces during handling. Contact with hot product will cause thermal burns. Avoid dust accumulation in enclosed space; use personal protective equipment as required.



SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS #
Polypropylene Homo-polymer	9003-07-0
> 98% Polypropylene Random Copolymer	009010-79-1
< 2% Additives	

SECTION 4. FIRST AID MEASURES

Skin

Immerse under a running stream of water or shower until cooled. Do NOT attempt to remove resin from skin. Removal can result in tissue damage. Get immediate medical attention.

Ingestions

No adverse effects anticipated by this route of exposure.

Inhalation

Move to fresh air seek medical attention if symptoms persist.

Eyes

Irrigate immediately with water for at least five minutes, mechanical irritation only.

SECTION 5. FIRE FIGHTING MEASURES

NFPA 704 Hazard Class

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

Health – 0
Flammability – 1
Instability - 0

Suitable Extinguishing Media

Dry chemical, Carbon Dioxide, foam, water spray, sand or earth is recommended. Carbon Dioxide can displace oxygen. Use caution when applying Carbon Dioxide in confined spaces.

Special Fire Fighting Procedures

For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool equipment exposed to fire with water if it can be done safely.

Unusual Fire / Explosion Hazards

This material may burn, but will not ignite readily. May for dust-air mixtures that present a fire hazard. Dense smoke is emitted when burned without sufficient oxygen.

Hazardous Combustion Products

Combustion may yield Carbon Monoxide, Acetaldehyde, Acetone, Acetic Acid, Formic Acid, Formaldehyde, and acrolein.

See Section 9 for flammable properties including flash point and flammable (Explosive) limits.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

This material may burn, but will not ignite readily. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Spilled pellets present a slipping hazard on hard surfaces. Stay upwind and away from spill / release. Avoid direct contact with material. For large spillages, notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (See Section 8). See Section 2 and 7 for additional information on hazards ad precautionary measures.

Environmental Precautions

Contain spill if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water, notify appropriate authorities and advise shipping of any hazard.

Methods and material for containment and cleaning up

Notify relevant authorities in accordance with all applicable regulations. Carefully shovel or sweep up spilled material and place in a suitable container. Minimize dust generation.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken. See Section 13 for information on appropriate disposal.

SECTION 7. HANDLING & STORAGE

Precautions for safe handling

Use only non-sparking tools. Avoid dust accumulation in enclosed space. Avoid contact with the heated material. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see Section 8). This material may be heated to high temperatures during use. Use caution when handling heated material, to avoid causing thermal burns. Vapors or fumes may cause watering or irritation of the eyes. May form combustible dust-air mixtures. Prevent accumulation of dust particles. Maintain proper grounding at all times. Avoid dust accumulation in enclosed space avoiding dispersal of dust in the air (i.e.: clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Explosion hazards apply only to dusts, not granular forms of this product. Do not handle or empty plastic bag or liner in presence of flammable vapor. Do not wear contaminated clothing or shoes.

Conditions for safe storage

Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry well-ventilated area away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE:
State, local, or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies for further information.

Engineering controls
If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e.: there is no leakage from the equipment).

Respiratory Protection
Where there is potential for airborne exposure above the exposure limit a NIOSH certified air purifying respirator equipped with N95 filters may be used. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health (IDLH).

Eye / Face Protection
The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

Skin / Hand Protection
The use of eye protection is not normally required; however, good industrial hygiene practice suggests the use of gloves or other appropriate skin protection whenever working with chemicals.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

- **Flash Point** – 329 °C (675 °F)
- **Auto Ignition** – 357 °C (675 °F)
- **Solubility in Water –** NIL
- **Specific Gravity –** 0.88 - .092

Not applicable – Boiling Point, Vapor Pressure, Vapor Density, Melting Point, Evaporation Rate

SECTION 10. STABILITY & REACTIVITY

Reactivity – Stable under normal ambient and anticipated conditions of use.
Chemical Stability – Stable under normal ambient and anticipated conditions of use.
Hazardous Reactions – Hazardous reactions not anticipated.
Incompatible Materials – Avoid contact with oxidizing agents.
Conditions to Avoid – Avoid all possible sources of ignition. Avoid the creation of dust when handling. Extended exposure to high temperatures can cause decomposition.
Hazardous Decomposition Products – At extrusion temperatures (>350 °F, >177 °C), polypropylenes can release acetaldehyde, acetone, acetic acid, formic acid, formaldehyde, and acrolein.

SECTION 11. TOXICOLOGICAL INFORMATION

Skin Corrosion / Irritation
Prolonged or repeated contact with dusts may be abrasive and mildly irritating to the skin. Solid material is not expected to be a skin irritant; however, skin contact with molten material may cause thermal burns.
Serious Eye Damage / Irritation
Dusts may be abrasive and irritating to the eyes. Contact with the heated material may cause thermal burns. Vapors or fumes may cause watering of the eyes.
Respiratory Sensitization
No information available.
Specific Target Organ Toxicity (Single Exposure)
No information available on the mixture, however none of the components have been classified for target organ toxicity (or are below the concentration threshold for classification).
Specific Target Organ Toxicity (Repeated Exposure)
No information available on the mixture, however none of the components have been classified for target organ toxicity (or are below the concentration threshold for classification).
Carcinogenicity
No information available on the mixture, however none of the components have been classified for carcinogenicity (or are below the concentration threshold for classification).

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

No adverse effects anticipated.

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method
Incineration of waste material in a permitted facility in accordance to local, state, and federal regulations is the recommended disposal method. Land filling in a licensed facility in accordance to local, state, and federal regulations is a suitable alternative.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

Not regulated.

SECTION 15. REGULATORY INFORMATION (non-mandatory)

Not regulated.

SECTION 16. OTHER INFORMATION (non-mandatory)

Not applicable