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: Lucia Jigs, Crystal Styrene (Polymer)
Product Number: 255-021, 255-022, 255-023, 255-025 Kit

Effective Date: 2/18/13

SECTION 2. HAZARDOUS IDENTIFICATION

Potential Health Effects:

Primary Routes of Entry

- Inhalation
- Ingestion
- Skin Contact
- Eye Contact

Human Effects and Symptoms of Overexposure:

Skin

Essentially non-irritating to skin. Possible mechanical injury only. Molten material causes burns. Skin absorption is unlikely due to physical properties.

Eyes

Solid or dust may cause irritation or corneal injury due to mechanical action.

Inhalation

Dust may cause irritation to upper respiratory tract. Irritating vapors to respiratory system may form when polymer is processed at high temperatures.

Ingestions

May cause choking if swallowed. Single dose oral toxicity is believed to be very low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

General Effects of Exposure

Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency. Air monitoring studies of extrusion operations involving a plastic containing decabromodiphenyl oxide indicated low airborne concentrations of polybrominated dibenzofurans. Medical studies of workers engaged in extrusion of plastics containing Decabromodiphenyl Oxide have indicated the presence of brominated dibenzofurans and brominated dibenzodioxins in blood of some workers. No health effects have been attributed to the presence of brominated dibenzofurans and brominated dibenzodioxins in these workers blood.

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

Eye Contact

Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. Get medical advice if irritation develops.

Skin Contact

No adverse effects anticipated by this route of exposure for thermal burns, cool molten materials with water and get medical attention. For contact with molten product do not remove clothing.

Inhalation

In case of inhalation, remove to fresh air. If irritation develops, consult a physician.

Ingestion

No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

Physician

No specific antidote / supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Water fog, Dry chemical, Carbon Dioxide (CO2) – do not use water jet.

Special Fire Fighting Procedures

Keep people away. Isolate fire area. Cool surroundings with water to localize the fire zone. Wear full protective equipment including a self-contained breathing apparatus. Hand held Carbon Dioxide or Dry Chemical extinguishers may be used for small fires. Soak thoroughly with water to cool and prevent re-ignition. Do not use water jet.

Unusual Fire / Explosion Hazards

Dense black smoke is emitted when burned without sufficient oxygen. Toxic fumes are released in fire situations. Mechanical handling can cause formation of dusts. Do not allow dust to accumulate. Accumulation of fine dust particles could pose an explosion hazard. Flowing material may produce static discharge, igniting dust accumulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Keep out of irrigation ditches, sewers, and water supplies. Spills should be collected to prevent contamination of waterways. Pellets on the floor could present a serious slipping problem. Sweep up to prevent a slippery hazard. Sweep shovel or vacuum spilled resins into a container for reused or disposal. Wear protective clothing and equipment.

SECTION 7. HANDLING & STORAGE

Handling

Avoid contact with eyes, skin, and clothing. Do not inhale dust or vapors. Do not ingest. Avoid accumulation of dust. Dust-air mixtures may be explosive. Wear protective clothing. Workers should be protected from the possibility of contact with molten resin during fabrication. Good housekeeping and controlling dusts are necessary for safe handling or product. Follow label warnings even after container is emptied. Avoid temperatures of 316 °C (600 ° F) or above.

Storage Precautions

Keep container dry and in a cool, well-ventilated place. Ground all equipment containing material.

Further Info on Storage Conditions

Protect equipment (e.g.: storage bins, conveyors, dust collectors) with explosion vents.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation Measures

Good general ventilation should be sufficient for most conditions. Local ventilation is recommended at the source of contaminant generation. Provide local exhaust ventilation for fumes / vapors emitted from polymer paddies. Avoid accumulation and dispersion of dust to reduce explosion potential.

Respiratory Protection

In dusty atmosphere, use an approved dust respirator. Atmospheric levels should be maintained below exposure guidelines.

Hand Protection

Gloves are recommended.

Eye Protection

Safety glasses if there is a potential for exposure to particles which could cause mechanical injury to the eye, wear chemical goggles. Wear chemical goggles around molten material.

Skin and Body Protection

Wear appropriate foot protection. Pellets on floor could present a serious slipping problem. No precautions other than clean body-covering clothing should be needed. Avoid contact with molten material. Eye bath and safety shower recommended.

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
- **Odor –** Odorless
- **Odor Threshold –** Not Available
- **Melting / Freezing Point -** 270 °F
- **Specific Gravity (Water = 1)** – 1.04
- **Solubility in Water –** Insoluble

Not Applicable – Vapor Pressure, Vapor Density, Evaporation Rate, Boiling Point

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Hazardous polymerization will not occur.
Stability – Stable under normal conditions of storage and handling.
Materials to Avoid – Avoid contact with strong oxidizers.
Conditions to Avoid – Avoid high temperatures. Temperatures of 600 °F (316 °C) or above.
Hazardous Decomposition Products – Processing may release fumes which may include polymer fragments and other decomposition products. Fumes can be irritating at temperatures exceeding melt temperatures. Polymer fragments can occur, decomposition products depend on temperatures, other materials present, and air supply. Hazardous decomposition products are carbon monoxide, carbon dioxide, dense smoke, and various hydrocarbons. Exposure of polystyrene to extremely high temperatures (600 °F or higher) may cause partial decomposition. Chemicals that may be released include styrene monomer, benzene, and other hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Information Not Available -

- Exposure Limit of Material
- LC 50 of material, species, and route
- LD 50 of material, species, and route
- Carcinogenicity of material
- Reproductive effects
- Irritancy of material
- Sensitizing capability of material
- Synergistic materials

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Environmental Fate – Not available

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method
In accordance with municipal, provincial, and federal regulations. Do not dump into sewers, on the ground, or into any body of water.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

- **TDG:** Non – regulated
- Special shipping instructions – Not applicable

SECTION 15. REGULATORY INFORMATION (non-mandatory)

United States Federal Regulations

WHMIS Classification – This is not a controlled product.

CPR Compliance – This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

SECTION 16. OTHER INFORMATION (non-mandatory)

Not applicable.