MATERIAL SAFETY DATA SHEET **TDC Form # TR**
704

SECTION 1 - HAZARDOUS INGREDIENTS

Ingredients	CAS #	% (weight)	LC50, ppm (inhalation, rat)	LD50, mg/kg (Oral, rat)
Silica, amorphous	7631-86-9	9	N/Av	N/Av

SECTION 2 - PREPARATION INFORMATION

Prepared by: Thermal Dynamics Corporation
Telephone #: 603-298-5711
Preparation date: November 19, 2003

SECTION 3 - PRODUCT IDENTIFICATION

Product identifier: O-Ring Lubricant
Product use: Silicone lubricant for O-rings

Supplier name and address:
Thermal Dynamics Corporation
82 Benning Street
West Lebanon, New Hampshire 03784
Telephone: 603-298-5711

Manufacturer name and address:
Dow Corning Corporation
South Saginaw Road
Midland, Michigan 48686
Telephone: (517) 496-5900
(24 Hour Emergency)

Emergency Telephone #: (CHEMTREC) 800 424 9300 USA / CANADA
703 527 3887 INTERNATIONAL

HMIS Rating: Health - 0; Flammability - 1; Reactivity - 0

SECTION 4 - PHYSICAL DATA

- **Physical state, odor and appearance:** Translucent white grease, with slight odor.
- **Odor threshold:** N/Av
- **Specific gravity (at 25°C):** Greater than 1
- **Coefficient of water/oil distribution:** N/Av
- **Vapor pressure (mm Hg @ 25°C):** N/Ap
- **Boiling point:** N/Ap
- **Freezing point:** N/Av
- **pH:** N/Ap
- **Vapor density (Air=1.0):** N/Ap
- **Evaporation rate (n-BuAc=1.0):** N/Ap
- **Volatiles, %:** 0
- **Solubility in water (w/w):** N/Av

SECTION 5 - FIRE AND EXPLOSION DATA

- **Conditions of flammability:** Product can burn, but is not combustible at normal temperatures.
- **Means of extinction:** On large fires use dry chemical, foam or water spray. On small fires, use carbon dioxide (CO_2), dry chemical or water spray. Water can be used to cool fire-exposed containers.
- **Sensitivity to mechanical impact/static discharge:** Not susceptible to mechanical impact or static discharge.
- **Flash point (Method):** 100°C (212°F)
- **Lower flammable limits (% by volume):** N/Av
- **Upper flammable limits (% by volume):** N/Av
- **Auto-ignition temperature:** N/Av
- **Hazardous combustion products:** Thermal breakdown of this product during a fire or exposure to very high heat may evolve the following hazardous combustion/decomposition products: Carbon monoxide, carbon dioxide, traces of incompletely burned carbon compounds, silicon dioxide and formaldehyde.
- **Fire Fighting Procedures:** Fire-fighters should wear self-contained breathing apparatus and protective clothing white fighting large fires involving chemicals. Determine the need to evacuate or isolate the area, according to your local emergency plan. Use water spray to keep fire-exposed containers cool.

SECTION 6 - REACTIVITY DATA

- **Stability:** Stable. Hazardous polymerization will not occur.
- **Incompatible materials:** Avoid contact with oxidizing materials.
- **Conditions of reactivity:** Product may decompose or ignite if exposed to extremely high temperatures.
- **Hazardous decomposition products:** See "Hazardous combustion products", above.

SECTION 7 - TOXICOLOGICAL PROPERTIES

*****Routes of exposure and acute/chronic effects*****

- **Exposure limits:** ACGIH-TLV-TWA: 10 mg/m^3 (total particulate).
- **Inhalation:** No irritation to eyes or respiratory passages. No injury is likely from relatively short exposures of less than eight hours.
- **Skin contact:** A single prolonged exposure (24 to 48 hours) cause no know adverse effect.
- **Eye contact:** Direct eye contact may cause temporary discomfort, with mild redness and dryness, similar to windburn.
- **Ingestion:** Small amounts transferred to the mouth by fingers during use, etc., should not cause injury. Swallowing large amounts may cause digestive discomfort.
- **Chronic effects:** No harmful long-term effects known.
- **Carcinogenicity:** Not listed by IARC or ACGIH. Silica in product is non-crystalline.
- **Teratogenicity, mutagenicity, other reproductive effects:** None known.
- **Sensitization to material:** Not known to be a sensitizer.
- **Synergistic materials:** None known.

SECTION 8 - FIRST AID

- **Inhalation:** No first air should be needed. If any breathing difficulties occur during work, remove from exposure and get medical attention.

- **Skin:** No first aid should be needed. Wash skin with mild soap and water to remove product. Launder soiled clothing before wearing again.
- **Eyes:** Immediately flush with plenty of water. Get medical attention if pain or irritation occurs.
- **Ingestion:** No first aid should be needed. If large amounts swallowed, get medical attention.
- **General comments:** Treat any exposure symptomatically.

SECTION 9 - PREVENTIVE MEASURES

- **Spill, leak or release:** Observe all personal protection equipment recommendations described in Sections 4 and "Protective Equipment", below. Wipe up or scrape up, and place in containers for salvage or disposal. Clean area as appropriate, since some silicone materials may present a slip hazard (even in small quantities). Give the area of the spill a final cleaning with steam, solvents or detergents.
- **Waste disposal:** Local, provincial or state, and federal laws and regulations may apply to releases and disposal of these material, as well as materials and items used in the cleanup. You must determine which federal, provincial or state, and local laws and regulations are applicable.

PROTECTIVE EQUIPMENT

- **Respiratory protection:** No respiratory protection should be needed
- **Engineering controls:** Good general ventilation is recommended. Local exhaust should not be required.
- **Protective gloves:** No special protection needed. Washing at mealtime and end of shift is normally adequate.
- **Eye protection:** Use proper eye protection while at work. Safety glasses are a minimum requirement.
- **Other protective equipment:** None normally required.
- **General comments:** Avoid eye contact. Use reasonable care in handling. These precautions are for room temperature handling. Use at elevated temperature, or in aerosol/spray applications, may require additional precautions.

STORAGE AND HANDLING

- **Handling procedures and equipment:** Use with adequate ventilation. Avoid eye contact.
- **Storage requirements:** No special precautions. Use reasonable care.
- **Special shipping information:** None (See Section 10).

SECTION 10 - REGULATION INFORMATION

(Not meant to be all-inclusive - selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown on this page. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, provincial or state, and local laws. The following specific information is made for the purpose of complying with numerous federal, provincial or state, and local laws and requirements. See MSDS for health and safety information.

Canadian Regulations:

WHMIS INFORMATION: Not regulated as a Controlled Product.

TDG INFORMATION: Not regulated as dangerous goods.

U.S. Regulations:

SARA 313 INFORMATION: This product contains no ingredients subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment Reauthorization Act of 1986 and 40 CFR Part 372.

Department of Transportation (DOT): Not hazardous according to DOT criteria.

Additional notes or references:

Abbreviations:

ACGIH:	American Conference of Governmental Industrial Hygienists
IARC:	International Agency for Research on Cancer
N/Ap:	Not applicable
N/Av:	Not available
NIOSH:	National Institute for Occupational Safety and Health
TCC:	Tagliabue Closed Cup
TWA:	Time Weighted Average
WHMIS:	Workplace Hazardous Materials Information System

References:

1. Van Nostrand Reinhold, Dangerous Properties of Industrial Materials, Seventh Edition, N. Irving Sax.
2. Canadian Centre for Occupational Health and Safety. RTECS (Registry of Toxic Effects) and CHEMINFO databases.
3. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2000.
4. International Agency for Research on Cancer Monographs.