DATE PREPARED: October 26, 2015
SUPERSEDES: March 21, 2013

SECTION 1: CHEMICAL AND COMPANY IDENTIFICATION

PRODUCT NAME: **TUFLON® 7200**
COMPANY NAME: **A.R. Thomson Group**
ADDRESS: 10030 - 31ST AVENUE, EDMONTON, AB T6N 1G4
PHONE NUMBER: (780) 450-8080 FAX: (780) 463-2021

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
This product consists of Crystalline Silica and an inorganic pigment dispersed and encapsulated into a Polytetrafluoroethylene (PTFE) matrix. Crystalline Silica is a hazard only when airborne.

Heating PTFE to temperatures in excess of 260 °C can evolve toxic fluorine compounds. Additional information concerning PTFE is available in the "Guide to the Safe Handling of Fluoropolymer Resins" published by the Fluoropolymers Division of the Society of the Plastics Industry, Inc.

Excessive levels of some components can cause lung and respiratory tract disorders. Maintain dust concentration at low levels.

PRODUCT CONSTITUENTS LISTED AS CARCINOGENS	IARC	OSHA	NTP
Crystalline Silica – IARC Group 1 (Sufficient evidence of carcinogenicity in humans)	Yes	No	No

POTENTIAL HEALTH EFFECTS

Primary Routes of Entry: Entry into the body is unlikely under normal conditions of use. Primary route of entry as a result of thermal or mechanical degradation is inhalation.
Acute Effects Of Overexposure: No effects due to exposure to the product are anticipated. If exposed to

thermal decomposition products of the PTFE, temporary symptoms of polymer fume fever, a temporary flu-like illness with chills, fever, and sometimes cough, of approximately 24 hours duration may arise. There are some reports in the literature of persistent pulmonary effects in individuals, especially smokers, who have repeated episodes of polymer fume fever. Because of complicating factors, such as mixed exposures and smoking history, these findings are uncertain. Small amounts of carbonyl fluoride and hydrogen fluoride may also be evolved when PTFE is overheated or burned. Inhalation of low concentrations of hydrogen fluoride can initially include symptoms of choking, coughing and severe eye, nose and throat irritation. Possibly followed after a symptomless period of 1 to 2 days by fever, chills and difficulty breathing, cyanosis, and pulmonary edema. Acute or chronic over exposure to hydrogen fluoride can injure the liver and kidneys. Inhalation, ingestion, or skin contact with carbonyl fluoride may initially include: skin irritation with discomfort or rash; eye corrosion with cornealor conjunctival ulceration; irritation of upper respiratory passages; or temporary lung irritation effects with cough, discomfort, difficulty breathing, or shortness of breath.

Chronic Effects Of Overexposure: There is no known chronic health effects connected with long term use or contact with this product.

Conditions Aggravated by Exposure: Individuals with pre-existing diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures from thermal decomposition products.

SECTION 3: COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENT NAME	CAS NUMBER	% WT.
Crystalline Silica	14808-60-7	40 to 50
Polytetrafluoroethylene	9002-84-0	50 to 60
Iron Titanium Brown Spinel	68187-02-0	< 1%

SECTION 4: FIRST AID MEASURES

Skin: The product is note likely to be hazardous by skin contact, but cleansing the skin after use is advisable.

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

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

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 530–550 °C (986–1022 °F) **Method:** ASTM D1929
Upper Flammable Limit (UFL): Not Determined
Lower Flammable Limit (LFL): Not Determined
Autoignition Temperature: Not Determined
Limiting Oxygen Index (LOI): >95

Hazardous Products of Combustion
Composition of by-products from the result of a fire or thermal decomposition will vary depending on the specific conditions. Hazardous gases/vapors possibly evolved include smoke, hydrogen fluoride, carbonyl fluoride, perfluorocarbon olefins and carbon monoxide. There may be others unknown to us.

Fire fighting Instructions
As in any fire, use a self-contained breathing apparatus (SCBA) in the pressure-demand mode in conjunction with full protective gear. Hydrogen fluoride fumes emitted during a fire can react with water to form hydrofluoric acid. Wear neoprene gloves when handling refuse from fire.

Extinguishing Media
Water, carbon dioxide, foam, or dry chemical. Be sure to use fire extinguisher appropriate to surrounding fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released or Spilled
No special precautions.

SECTION 7: HANDLING AND STORAGE

Handling
Avoid grinding, abrading or other mechanical actions that could release airborne silica. Dust generated from this material must be managed by wet wiping or vacuuming with HEPA filtration equipped vacuum cleaners. Do not dry sweep or blow dust with compressed air. Avoid breathing dust. Avoid contamination of cigarettes or tobacco with dust from this material. Do not heat above 500F without adequate ventilation. Wear neoprene gloves when handling refuse from fire.

Storage
Store in labelled closed containers and away from open flames and other sources of ignition. Do not store with or near incompatible materials cited in Section 10.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Engineering Controls

Ventilation: No special requirements for normal conditions of use. If levels exceed the occupational exposure limits, then use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels to below recommended exposure limits. Maintain and test ventilation systems in accordance with OSHA regulations (29CFR 1910.94). Review OSHA 29CFR part 1910.1000 or 29CFR Part 1926 Subpart Z for exposure level information.

Personal Protective Equipment

Eyes and Face: As generally good practice, safety glasses with side shields are recommended when handling this product to prevent eye contact with particulate matter.
Skin: As generally good practice, use of impervious gloves is recommended.
Respiratory: No special requirements under normal conditions of use.

- **Vapors:** In the event of a fire, use a self-contained breathing apparatus (SCBA) in the pressure-demand mode in conjunction with full protective gear.
- **Dust:** Exposure levels that exceed PEL/TLV limits are unlikely. If exposure levels are exceeded, use a NIOSH approved air purifying respirator with an R100 or P100 (high efficiency) filter cartridge in accordance with OSHA respirator program requirements (29CRF 1910.134).

EXPOSURE GUIDELINES

Component	(8 Hr. TWA) OSHA PEL	(8 Hr. TWA) ACGIH TLV
Silica, Crystalline (Quartz)	0.1 mg/m^3 (respirable dust)	0.1 mg/m^3 (respirable dust)
Iron Titanium Brown Spinel	15.0 mg/m^3 (total dust)	10.0 mg/m^3 (total dust)
Polytetrafluoroethylene	None Established	None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light tan sheet
Odor: No odor
VOC Content: 0%
pH: Not Applicable
Vapor Pressure: Not Determined
Boiling Point: Not Applicable
Freezing Point: Not Applicable
Melting Point: Gel Point is approximately 327°C (620-°F)
Solubility In Water: Insoluble
Specific Gravity: Typically 2.16

Vapor Density: Not Determined

Reactivity with Water: Non Reactive

SECTION 10: STABILITY AND REACTIVITY

Stability: The material is stable.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to avoid: Direct flame will ignite product. Avoid heating above 500°F without adequate ventilation.

Materials to avoid: Incompatible or can react with finely divided metal powders (e.g. aluminum and magnesium), molten alkali metals, and potent oxidizers like fluorine and related compounds like chlorine trifluoride. Contact with incompatibles can cause fire or explosion.

Hazardous Decomposition Products: Composition of by-products from the result of a fire or thermal decomposition will vary depending on the specific conditions. Hazardous gases/vapors possibly evolved include smoke, hydrogen fluoride, carbonyl fluoride, perfluorocarbon olefins and carbon monoxide. There may be others unknown to us.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity data is available on the individual components. Please call (780) 450-8080 for information.

SECTION 12: ECOLOGICAL INFORMATION

No ecological information is available on this product.

SECTION 13: DISPOSAL INFORMATION

Dispose of in accordance with local, state, and federal regulations. Land fill is normally recommended.

SECTION 14: TRANSPORTATION INFORMATION

DOT - Not Regulated

SECTION 15: REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all of the information required:

This product contains the following materials which are *not* categorized on Canada's DSL list:

- PTFE (CAS # 9002-84-0)
- Iron titanium brown spinel (CAS # 68187-02-0)

This product contains the following material which is categorized on Canada's DSL list:

- Crystalline silica

Warning, this product contains the following material which is classified by WHMIS:

- Crystalline silica, D2A

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

- None

Warning, this product contains the following materials known to the state of California to cause cancer or reproductive side effects:

- Crystalline Silica

States such as Pennsylvania, New Jersey, Vermont, Massachusetts, and Rhode Island may also have specific requirements for additional information.

SECTION 16: OTHER INFORMATION

This MSDS is prepared to safeguard the health of workers and to comply with the requirements of 29CFR 1910.1200. Consult your employer before working with this material.

DISCLAIMER

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, storage, transportation and release and is not considered a warranty or quality specification.