

DATE PREPARED: October 26, 2015
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SECTION 1: CHEMICAL AND COMPANY IDENTIFICATION

PRODUCT NAME: **TUFLON® 7100**
 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 inorganic fillers and pigment dispersed and encapsulated in a Polytetrafluoroethylene matrix. Heating product to temperatures in excess of 300°C can evolve toxic fluorine compounds.

| PRODUCT CONSTITUENTS LISTED AS CARCINOGENS | IARC | OSHA | NTP |
|--|------|------|-----|
| <u>Cobalt Aluminate Blue Spinel</u> | Yes* | No | No |

***IARC** has classified cobalt and cobalt compounds as possibly carcinogenic to humans (Group 2B, Monograph 52). IARC considers nickel compounds to be carcinogenic to humans (Mongraph #49). Pigment however is produced from the high temperature calcination of the component substances, and does not necessary reflect the properties of component metals or oxides. Pigment is cited as acceptable for food contact per 21CFR170.39.

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: High concentrations of dusts may be irritating to the eyes, skin, mucous membranes and respiratory tract. Skin contact may produce reddening of the skin and itching. If exposed to thermal decomposition products of the Polytetrafluoroethylene, temporary symptoms of polymer fume fever (chills, fever, cough and malaise).

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. (Optional) |
|------------------------------|------------|------------------|
| Fibrous Glass | 65997-17-3 | |
| Cobalt Aluminate Blue Spinel | 1345-16-0 | <2 |
| Expanded Perlite | 93763-70-3 | |
| Polytetrafluoroethylene | 9002-84-0 | |

SECTION 4: FIRST AID MEASURES

Eyes: Flush the eyes with water for at least 15 minutes. Seek medical attention if irritation develops or persists.

Skin: Wash contaminated skin thoroughly with soap or mild detergent. Get medical attention if irritation persists. Dermatitis should be treated symptomatically by a physician.

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

Inhalation – Dust: No adverse effects are anticipated by breathing small amounts during normal and intended use. If exposed to high dust levels, then remove to fresh air. Drink water and clear throat. Blow nose to clear dust.

SECTION 5: FIRE FIGHTING MEASURES

| | |
|---|---------------------------|
| Flash Point: 530–550 °C (986–1022 °F) | Method: ASTM D1929 |
| Upper Flammable Limit (UFL): | Not Applicable |
| Lower Flammable Limit (LFL): | Not Applicable |
| Autoignition Temperature: 520–560 °C (968–1040 °F) | Method: ASTM D1929 |
| 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 suitable gloves and clothing.

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 actions are required for relatively large pieces or fragments. Prompt clean up is recommended. Personnel involved in the clean up should be wearing appropriate personal protective equipment as outlined in section 8. Material should be placed in DOT approved containers for disposal.

SECTION 7: HANDLING AND STORAGE**Handling**

Dust generated from this material must be managed by wet wiping or vacuuming with HEPA filtration equipped vacuum cleaners. Personnel involved with handling this product should be wearing appropriate personal protective equipment as outlined in section 8.

Work / Hygienic Practices

Personnel should avoid contaminating cigarettes or tobacco with particles of PFFE. Do not eat or smoke in areas of storage or processing.

Storage

Store in labelled closed containers and away from open flames & 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: If dust 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. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer. Maintain and test ventilation systems in accordance with OSHA regulations (29CFR 1910.94).

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: Exposure levels that exceed PEL/TLV limits are unlikely. If exposures exceed the limits cited in this section by less than a factor of 10, use a NIOSH approved N95 respirator. If exposures exceed 10 times this limit, consult a professional industrial hygienist or your respiratory protective equipment supplier for selection of the proper equipment. The evaluation of the need for respiratory protection should be determined by a professional industrial hygienist.

EXPOSURE GUIDELINES

| Component | (8 Hr. TWA) OSHA PEL | (8 Hr. TWA) ACGIH TLV |
|---|--|--|
| Fibrous Glass Nonrespirable fibers and Particulate | 15.0 mg/m ³ (total dust) | 5.0 mg/m ³ (respirable fraction) |
| Respirable Particulate | 5.0 mg/m ³ (respirable dust) | 3.0 mg/m ³ (PNOC) |
| Respirable particulate with fiber like dimensions (glass shards) | None Established | 1 fiber/cc (respirable) |
| Cobalt Aluminate Blue Spinel* * Cobalt metal, dust and fumes (as Co) | 0.1 mg/m ³ * | 0.02 mg/m ³ * |
| Polytetrafluoroethylene | None Established | None Established |
| Expanded Perlite | 15 mg/m ³ (total dust) 5 mg/m ³ (respirable dust) | 10 mg/m ³ (total dust) 3 mg/m ³ (respirable dust) |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue sheet or gasket

Odor: Odorless

VOC Content: Not Applicable

pH: Not Applicable

Vapor Pressure: Not Applicable

Vapor Density: Not Applicable

Boiling Point: Not Applicable

Freezing Point: Not Applicable

Melting Point: Gel Point is approximately 327°C (620-°F)

Solubility In Water: Negligible

Specific Gravity: Approximately 2.0

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

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. 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

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

- None Known

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. The responsibility for the compliance with existing law and regulations lies with the receiver of the product.

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