

DATE PREPARED: October 26, 2015

SUPERSEDES: July 16, 2012

## SECTION 1 CHEMICAL AND COMPANY IDENTIFICATION

PRODUCT NAME: **Thomson GV-1200**

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 a braided jacket of Inconel wire and glass filament reinforced carbon yarn braided over a resilient core. The yarns are coated with Polytetrafluoroethylene (PTFE) and the braid is coated with flake graphite and zinc.

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 concentrations at low levels.

<b>PRODUCT CONSTITUENTS LISTED AS CARCINOGENS</b>	<b>IARC</b>	<b>OSHA</b>	<b>NTP</b>
Titanium Dioxide (Identified as a potential carcinogen by NIOSH.)	No	No	No
Nickel – IARC, Group 2B (possibly carcinogenic to humans). Also classified as potential occupation carcinogen by NIOSH.	Yes	Possible Select Carcinogen	Suspect Carcinogen
Silica, Crystalline, IARC Group 1 (sufficient evidence of carcinogenicity in humans)	Yes	No	Yes
Slag Wool – IARC, Group 3 (not classifiable as to its carcinogenicity to humans)	No	No	No

**SECTION 2 HAZARDS IDENTIFICATION (Continued from Page 1)****Potential Health Effects:**

Under normal and intended use conditions it is not anticipated that dust levels sufficient to cause symptoms or adverse health effects will be produced.

**Primary Routes of Entry:**

Inhalation of dusts or fumes from thermal decomposition. Dermal and ocular contact.

**Target Organs:**

Prolonged and repeated overexposure can cause lung and respiratory tract damage.

**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:**

Respiratory and lung disorders can result when exposed to prolonged and repeated elevated dust levels. These disorders can include delayed injuries such as pneumoconiosis (a fibrotic disease in the lung tissue) or lung cancer. Chronic lung injury, including silicosis can be progressive, disabling, and may lead to death.

**Conditions Aggravated by Exposure:**

Smoking aggravates the effects of exposure to some product constituents. Pre-existing respiratory and lung diseases may be aggravated where substantial airborne dust levels are presented.

**SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS**

COMPONENT NAME	CAS NUMBER	% WT
Kaolin	1332-58-7	
Polyethylene glycol trimethylnonyl ether	60828-78-6	
Polytetrafluoroethylene	9002-84-0	
Titanium Dioxide	13463-67-7	< 1
Calcium Carbonate	1317-65-3	
Nickel (In the form of Inconel 900)	7440-02-0	< 5
Graphite	7782-42-5	
Zinc	7440-66-6	< 10
Carbon Fiber	70892-43-2	
Fibrous Glass	65997-17-3	< 10
Slag Wool	Not Established	< 15
Silica, Crystalline	14808-60-7	< 1

## SECTION 4 FIRST AID MEASURES

**Eyes:**

Flush the eyes with water for least 15 minutes. Do not rub eyes. Get medical attention if necessary.

**Skin:**

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

**Inhalation:**

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:** Not Applicable

**Method:** Not applicable

**Upper Flammable Limit (UFL):**

Not Applicable

**Lower Flammable Limit (LFL):**

Not Applicable

**Autoignition Temperature:**

Not Applicable

**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, acrylonitrile monomer, hydrogen cyanide, oxides of nitrogen, nickel and zinc; ammonia, aldehydes, aliphatic hydrocarbons, 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.

**Extinguishing Media**

Carbon dioxide, water, or ABC dry chemical. Be sure to use fire extinguisher appropriate to surrounding fire.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Small Spill**

No special precautions are necessary where packing is intact and there is no substantial product dust generated. For any small amounts of dust, wet wipe and dispose.

**Large Spill**

If substantial amounts of dust are present as the result of a physical disturbance which disrupts the matrix of the material, the material should first be lightly misted with water then vacuumed using a vacuum cleaner equipped with a High Efficiency Particulate Air (HEPA) filtration device.

## 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 PTFE. Do not eat or smoke in areas of storage or processing.

### Storage

The product is stable under all conditions of storage.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

### Engineering Controls

#### Ventilation:

Normal and intended use of this product should not produce material component levels in substantial airborne concentrations. In keeping with standard Industrial Hygiene practices, if exposure levels are not known, or 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. 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:

Special precautions are not normally necessary. If dust is generated, use American National Standards Institute (ANSI) approved eye and face protection when subjected to potential eye and face hazards.

#### Skin:

Use of impervious gloves is recommended.

#### Respiratory:

Normal intended use of this product should not produce material component levels in substantial concentrations. In keeping with standard Industrial Hygiene practices, if exposure levels are not known, or if the dust levels exceed occupational exposure limits and engineering controls cannot be used; then use the appropriate respiratory protection.

Use a NIOSH approved air purifying respirator with an R100 or P100 (high efficiency) filter cartridge in accordance with OSHA respirator program requirements (29CFR 1910.134).

**Exposure Guidelines**

<b>Component</b>	<b>OSHA PEL (8 Hr. TWA)</b>	<b>ACGIH TLV (8 Hr. TWA)</b>
Kaolin	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
Polytetrafluoroethylene	None Established	None Established
Graphite	15 mppcf	2.0 mg/m <sup>3</sup> (respirable dust)
Calcium Carbonate	15 mg/m <sup>3</sup> (total dust)	10 mg/m <sup>3</sup> (total dust)
Slag Wool	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
Carbon Fiber	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
Polyethylene glycol trimethylnonyl ether Fibrous Glass	None Established	None Established
Nonrespirable fibers and Particulate	15.0 mg/m <sup>3</sup> (total dust)	5.0 mg/m <sup>3</sup> (respirable fraction)
Respirable Particulate	5.0 mg/m <sup>3</sup> (respirable dust)	3.0 mg/m <sup>3</sup> (PNOC)
Respirable particulate with fiber like dimensions (glass shards)	None Established	1 fiber/cc (respirable)
Silica, Crystalline (Quartz)	10 mg/m <sup>3</sup> / %SiO <sub>2</sub> + 2 (resp) 30 mg/m <sup>3</sup> / %SiO <sub>2</sub> + 2 (total)	0.1 mg/m <sup>3</sup> (resp)
Nickel	1.0 mg/m <sup>3</sup> Nickel Metal	1.0 mg/m <sup>3</sup> Nickel Metal
Zinc	None Established	None Established
Titanium Dioxide	10 mg/m <sup>3</sup> (total dust)	10 mg/m <sup>3</sup> (total dust)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Gray black braided packing.

**Odor:** Slight odor

**Physical State:** Solid

**pH:** Not Applicable

**Vapor Pressure:** Not Applicable

**Boiling Point:** Not Applicable

**Freezing Point:** Not Applicable

**Melting Point:** Not Applicable

**Solubility In Water:** < 3 %

**Specific Gravity:** Not Applicable

## SECTION 10 STABILITY AND REACTIVITY

**Stability:**

The material is stable.

**Hazardous Polymerization:**

Hazardous polymerization will not occur.

**Conditions to avoid:**

Do not expose the material to direct flame.

**Materials to avoid:**

Strong alkali and oxidizing agents.

**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, acrylonitrile monomer, hydrogen cyanide, oxides of nitrogen, nickel and zinc; ammonia, aldehydes, aliphatic hydrocarbons, 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 information available for product.

## SECTION 13 DISPOSAL INFORMATION

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

## SECTION 14 TRANSPORTATION INFORMATION

D.O.T. Shipping Name: Not Regulated

## SECTION 15 REGULATORY INFORMATION

**All components are listed on:**

US: TSCA

EC: EINECS

Canada: DSL

**CERCLA Reportable Quantity:**

Nickel: RQ 100 lbs for particles less than 100 micrometers in diameter

Chromium: RQ 5000 lbs for particles less than 100 micrometers in diameter

**RCRA Status:**

Not Applicable

**SARA Title III:**

Section 302 Extremely Hazardous Substances:

Not Applicable

Section 311/312 Hazard Categories:

Not Applicable

Section 313 Toxic Chemicals:

Chromium and Nickel

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

States such as Pennsylvania, New Jersey, Vermont, Massachusetts, and Rhode Island may also have specific requirements relative to component in this product; consult specific state regulatory 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 guidance for safe handling, use, storage, transportation and release and is not considered a warranty or quality specification.

M41127063009MM