MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product name: MASTERS METALLIC COMPOUND
Product use: Pipe thread and gasket sealant.

Supplier name and address:
G.F. THOMPSON CO. LTD.
620 Steven Court
Newmarket, Ontario
L3Y 6Z2

Manufacturer name and address:
Refer to supplier.

Emergency Tel.#:
Mon – Fri, 7:30 am to 5:00 pm EST
905-898-2557
800-499-3673 (toll free)
24 hr Emergency Tel:
905-252-4793

WHMIS CLASS: B3, D2A, D2B

HMIS Rating:
* - Chronic hazard 0 - Minimal 1 – Slight 2 - Moderate 3 - Serious 4 – Severe
Health: *2 Flammability: 2 Reactivity: 0

SECTION II - INGREDIENTS

Ingredients	CAS#	wt.%	LC50 / 4 Hrs (Rat, ihl.)	LD50 mg/kg (Rat, oral)	(Rabbit, dermal)
Lead powder	7439-92-1	15 – 40	N/Av	N/Av	N/Av
Polymerized castor oil	68187-84-8	10 - 30	N/Av	N/Av	N/Av
Castor oil	8001-79-4	10 – 30	N/Av	N/Av	N/Av
n-Butyl alcohol	71-36-3	5 – 10	>8000 ppm	2510 (adult) 790 (young, male)	4200

SECTION III - PHYSICAL DATA

Physical state, odour and appearance:	Medium grey, paste. Odour of alcohol.
Freezing / melting point:	65.6 – 187.8 ^{o}C / 150 - 370 ^{o}F (emulsion range)
Evaporation rate (n-Butyl acetate = 1):	N/Av
Volatile, % by volume:	>99 (pure n-Butyl alcohol)
Odour threshold:	N/Av
Solubility in water:	Insoluble
Specific gravity:	N/Av
pH:	N/Av.
Boiling point:	N/Av
Vapour density (Air = 1):	N/Av
Viscosity:	N/Av
Vapour pressure (mmHg):	N/Av
Coefficient of water/oil distribution:	N/Av
VOC:	54.4 g/l, 1.6%

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SECTION IV - FIRE AND EXPLOSION DATA

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Conditions of flammability: Combustible. Product may be ignited by heat, sparks and flame.

Flash point (Method): 63°C / 145.4 ^{o}F (Closed Cup)
Auto-ignition temperature: N/Av
Upper flammable limit %: N/Av
Lower flammable limit %: N/Av
Means of extinction: Dry chemical is preferred. Additional types include alcohol foam, carbon dioxide and water fog. Do not use water jet, as this may spread burning material.
Sensitivity to mechanical impact/static discharge: N/Av.
Special fire fighting procedures: Firefighters should wear proper full protective equipment and self-contained breathing apparatus. Move containers from fire area if it can be done without risk. Water spray may only be useful in cooling equipment and containers exposed to heat and flame.
Unusual fire and explosion hazards: Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.
Hazardous combustion products: Toxic lead oxides, carbon oxides and other irritating fumes and smoke.

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SECTION V - REACTIVITY DATA

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Stability: Stable under the recommended storage and handling conditions prescribed. Hazardous polymerization will not occur.
Incompatible materials: Strong oxidizers (e.g. Chlorine, Peroxides, etc.), acids, bases.
Conditions of reactivity: Stable under ambient pressure and temperature. Avoid heat, sparks and flames.
Hazardous decomposition products: None known. Refer to Section IV for 'Hazardous combustion products'.

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SECTION VI - TOXICOLOGICAL PROPERTIES

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******Routes of exposure and acute effects******

Exposure limit: ACGIH-TLV: Lead – 0.05 mg/m^{3}; n-Butyl alcohol – 20 ppm.
OSHA-PEL: Lead – 50 µg/m^{3} (Final rule limit); n-Butyl alcohol – 100 ppm.
Routes of exposure: Skin contact, eye contact, inhalation and ingestion.
Irritancy of product: Mild skin irritant, severe eye irritant.
Inhalation: Harmful if inhaled. Inhalation may cause nose, throat and respiratory tract irritation. Symptoms may include headache, nausea, vomiting, dizziness and other central nervous system effects. This product contains lead. Inhalation of lead fumes, mists or vapours may cause cumulative effects, which develop slowly over time and resemble chronic overexposure. Symptoms of overexposure to lead may include nausea, headache, fatigue, cramps, vomiting, diarrhea, constipation, confusion, convulsions, anemia and muscular weakness.
Skin: May cause mild irritation. Can be absorbed through open wounds or cuts, causing lead poisoning (effects similar to those listed for Inhalation).
Eyes: May cause severe irritation.
Ingestion: Harmful if ingested. May cause irritation to the mouth, throat and stomach. Symptoms may include joint pain, a metallic taste in the mouth and other symptoms similar to those listed for inhalation.
Chronic effects: Prolonged or repeated skin contact may cause severe drying and cracking of the skin (dermatitis). Chronic overexposure to lead may cause long-term toxicity or plumbism. Plumbism may include central nervous system effects, peripheral nervous system effects, digestive system effects (e.g. inflammation of stomach, blue 'lead line' on the gums), kidney damage, blood system effects and reproductive system effects.
Carcinogenicity: Contains Lead. Lead is classified as carcinogenic by IARC (Group 2B) and ACGIH (Group A3). .
Reproductive effects, Teratogenicity, Mutagenicity: Contains Lead. Lead may cause reproductive, teratogenic and mutagenic (reproductive and non-reproductive cells) effects.
Sensitization to material: None known.
Synergistic materials: N/Av.
Conditions aggravated by exposure: Pre-existing skin, eye and respiratory disorders.

SECTION VII - FIRST AID

Inhalation: Immediately remove victim to fresh air. Obtain medical attention.

Skin contact: Immediately wash skin with soap and plenty of water, while removing contaminated clothing. Obtain medical attention if irritation persists.

Eye contact: Immediately flush eyes thoroughly with water for at least fifteen minutes. Do not rub eyes. Obtain medical attention.

Ingestion: Do not induce vomiting. Call physician or Poison Control Centre immediately (e.g. Hospital for Sick Children, Poison Control Centre. Toronto, Ontario. Telephone: 416-598-5900).

SECTION VIII - PREVENTIVE MEASURES

Spill, leak or release: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate chemically resistant equipment. Eliminate all sources of heat and flame. Ventilate area of release. Stop leak if you can do so without risk. Absorb or wipe up with non-combustible, inert absorbent material. Place contaminated absorbent material into suitable containers for later disposal (see below). Clean spill area. Keep out of waterways. Notify the appropriate authorities as required.

Waste disposal: Handle according to recommendations listed below. Dispose in accordance with all applicable government regulations.

PROTECTIVE EQUIPMENT

Respiratory protection: None required under normal use. For prolonged exposure or if the TLV is exceeded, wear NIOSH-approved respirators.

Ventilation: Use in well ventilated area. General ventilation should be sufficient under normal use. Local exhaust ventilation may be necessary for prolonged exposures or if the product is being heated.

Protective gloves: Gloves impervious to the material, must be worn. Advice should be sought from glove suppliers.

Eye protection: Safety goggles, to prevent product from entering the eyes.

Other protective equipment: An eyewash station and safety shower should be made available in the immediate working area. Other equipment, including resistant apron, may be required according to workplace standards.

*** STORAGE & HANDLING ***

Storage and handling conditions:

Handling: Wear appropriate chemically protective equipment. Use in a well ventilated area. Avoid inhalation and ingestion of product, and activities that generate dust or fume. Avoid contact with skin, eyes, and clothing. Do not eat, drink or smoke in work areas. Keep away from heat, sparks and flame. Keep away from acids and incompatible materials. Keep container tightly closed when not in use. Wash thoroughly after handling.

Storage: Store in a cool, dry, well-ventilated area away from incompatibles (refer to Section V), heat and flame. Practice good housekeeping procedures to prevent accumulation of dust or refuse.

Special Shipping Information - Transportation of Dangerous Goods Regulations (TDGR): This material, as supplied, is not regulated for transport by ground within Canada.

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SECTION IX - PREPARATION INFORMATION

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Prepared by: G.F. THOMPSON CO. LTD.
Preparation date: December 1, 2012

Additional notes or references:

Legend: ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Service
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
N/Ap: Not Applicable
N/Av: Not Available
NIOSH: National Institute of Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RTECs: Registry of Toxic Effects of Chemical Substances
TLV: Threshold Limit Values
WHMIS: Workplace Hazardous Materials Information System

References: 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2005.
2. International Agency for Research on Cancer Monographs, searched 2006.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2006 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.