

MATERIAL SAFETY DATA SHEET

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SECTION 1 - PRODUCT IDENTIFICATION AND USE

Product Identifier: 14WIC601

Product Application: Granules or shot for melting

Manufacturers Name: **IMPERIAL SMELTING AND REFINING CO. LTD.**

Complete Address: 451 DENISON ST. MARKHAM, ONTARIO L3R 1B7

Emergency Telephone No.: (905) 475-9566

Suppliers Name:

Complete Address:

Emergency Telephone No.:

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Ingredients	%	CAS #	TLV (mg/m3)	STEL (mg/m3)
GOLD	50 - 60	7440-57-5	N.AV	N.AV
NICKEL	10 - 20	7440-02-0	0.2	N.AV
COPPER	10 - 20	7440-50-8	0.2	2.0
ZINC	5 - 10	7440-66-6	5.0	10.0

SECTION 3 - PHYSICAL DATA

Physical State -	SOLID
Appearance -	METAL GRAIN OR SHOT
Density (g/cm3) -	12.73
Liquidus (°C) -	1030
Solidus (°C) -	1000

Information Not Applicable: Odour threshold; vapour pressure; vapour density; evaporation rate; pH

SECTION 4 - FIRE AND EXPLOSION DATA

Flammability: None

Explosion Data: None

Extinguishing Media: Class D extinguisher, sand or other non-flammable solid. Do not use water.

Information Not Applicable: Flashpoint; upper and lower flammable limit; auto ignition temperature; hazardous combustion products

Information is for form supplied. Finely divided particles (dust or powder) created during use of this product may be flammable when exposed to flame or oxidizing reagents.

SECTION 5 - REACTIVITY DATA

Chemical Stability: Product is stable under normal ambient working conditions

Incompatibility: Keep product away from strong acids, halogens or active acetylene. Adding any amount of water to molten metal may cause an explosion, and is not recommended.

Hazardous Decomposition Products: PRODUCT MAY LIBERATE METAL FUMES ON EXCESSIVE HEATING. HEATING MOLTEN METAL OVER 1180°C IS NOT RECOMMENDED. USE APPROPRIATE VENTILATION TO CARRY ALL FUMES AWAY FROM WORK AREA. CONTROL DISPERSION OF ANY FINELY DIVIDED PARTICLES THAT MAY BE CREATED DURING USE OF THIS PRODUCT.

SECTION 6 - TOXICOLOGICAL PROPERTIES

Route of Entry: Inhalation or skin contact: Not known to be hazardous in form supplied. Gloves, masks and ventilation to suit the working process are recommended. If susceptibility to Nickel dermatitis is suspected or known, use of gloves and other barriers to prevent long term skin contact are recommended.

Effects of Acute Exposure to Material: Not known to be hazardous in form supplied. INHALATION OF FRESHLY FORMED FUME MAY CAUSE METAL FUME FEVER. INITIAL SYMPTOMS INCLUDE DRYNESS AND IRRITATION OF THE THROAT. SEVERAL HOURS AFTER EXPOSURE, SIGNS INCLUDE A METALLIC TASTE IN THE MOUTH, HEADACHE, FEVER, CHILLS, EXCESSIVE SWEATING, MUSCLE PAINS, NAUSEA, VOMITING AND WEAKNESS. RECOVERY FROM SYMPTOMS OCCURS WITHIN 48 HOURS. METAL FUME FEVER IS NOT USUALLY FATAL

Effects of Chronic Exposure: There are no known chronic effects relating to repeated incidences of metal fume fever.

Carcinogenicity: Unknown
Synergistic Materials: N.AV.

Teratogenicity: N.AV.
LD₅₀: N. AV

Mutagenicity: N.AV.
LC₅₀: N. AV

SECTION 7 - PREVENTIVE MEASURES

Engineering Controls: Use ventilation that effectively keeps level of fume generated during use away from working area. Local exhaust may be required. (If required, see Industrial Ventilation: A manual recommended practice; by the ACGIH)

Personal Protective Equipment:

Gloves: Wear appropriate gloves to prevent injury during handling and from any hazards due to processing, and to prevent contact with any finely divided particles that may be created.

Respirator: If exposure levels in work zone are near or over OSHA values, use a portable fume respirator or high efficiency particulate filter (NIOSH APPROVED, CSA STD. Z94. 4-M1982)

Eye Protection: Wear protection to prevent contact with eyes during normal handling. In addition, tinted shielded safety glasses should be worn when working with molten alloy. (CSA STD. Z94.3-M1982).

Leak and Spill Procedures: For form supplied, sweep up metal. Smother molten metal spills with sand or other suitable class D extinguishing media, allow to cool, then clean up.

Waste Disposal: Return to manufacturer for refining

Storage Requirements: Store in dry container away from incompatible materials.

Footwear: Wear footwear appropriate to the process and amount of metal handled.

Other protection: Practice good housekeeping and hygiene procedures.

SECTION 8 - FIRST AID MEASURES

If a person breathes large amounts of metal fume, move them to fresh air. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. If breathing is difficult, provide oxygen. Take the person to medical attention if they exhibit symptoms of metal fume fever noted in Section 6. Administer normal first aid to burns caused by molten metal. If dermal irritation initiates from handling material, wash affected area thoroughly with soap and water.

SECTION 9 - PREPARATION DATE OF MSDS

Prepared by: Anita Anderson, Senior Project Manager

Phone Number: (905)475-9566 Date: November 4, 2005