

MATERIAL SAFETY DATA SHEET

Indium Trichloride

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Date of Issue: 21 Sept 06

STATEMENT OF HAZARDOUS NATURE

Hazardous according to criteria of Worksafe Australia

COMPANY DETAILS

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IDENTIFICATION SECTION

Product Name	Indium Trichloride
Other Names	Indium (III)Chloride; Indium Chloride
Product Code	C112
U.N. Number	None allocated
Dangerous Goods Class and Subsidiary Risk	None allocated
Hazchem Code	None allocated
Poison Schedule	None allocated
Use	Metal stain

Physical Description and Properties

Appearance	White flakes
Boiling Point/Melting Point	BP 800°C, MP 586°C
Vapour Pressure	No data
Specific Gravity	3.46
Flash Point	No data
Flammability Limits	No data
Solubility in water	Soluble in water

Other Properties

Ingredients

Chemical Name	CAS Number	Proportion
InCl ₃	10025-82-8	100%

HEALTH HAZARD INFORMATION

Health Effects:	Aggravation of pre-existing conditions: Persons with pre-existing skin disorders or eye problems or impaired respiratory or kidney function may be more susceptible to the effects of the substance.
Swallowed:	Indium and its compounds are poorly absorbed from the gastrointestinal tract and are relatively non-toxic by ingestion. May cause pulmonary oedema. May cause irritation or mild burning to the mouth, throat and stomach.
Eye:	Causes irritation. May cause severe irritation or burns.
Skin:	May cause slight irritation.
Inhaled:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

First Aid:

Swallowed:	If swallowed DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Eye:	Immediately flush eyes with copious amounts of water for at least 15 minutes. Get medical attention immediately.
Skin:	Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Inhaled:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

First Aid Facilities:

Advice to Doctor

PRECAUTIONS FOR USE

Exposure Standards:	Airborne exposure limits: For Indium and Indium compounds (as In): - ACGIH Threshold Limit Value (TLV) – 0.1mg/m ³ (TWA). – NIOSH Recommended exposure limit (REL) – 0.1mg/m ³ recommended TWA 10 hours.
Engineering Controls:	Use general or local exhaust ventilation to meet TLV requirements. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection:	If the exposure limit is exceeded and engineering controls are not feasible, a half-facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-facepiece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece, positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. Skin protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Eye protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Flammability:	Not flammable under conditions of use

SAFE HANDLING INFORMATION

Storage and Transport:	Keep container tightly closed. Store in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
Spills and Disposal:	Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with all local, state and federal regulations.
Fire/Explosion Hazard:	Fire: Not considered to be a fire hazard. Explosion: Not considered to be an explosion hazard. Emits toxic fumes when heated to decomposition. Hydrolyses to form $\text{In}(\text{OH})_3$. May release toxic fumes. Use water, foam, dry chemical or carbon dioxide. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

OTHER INFORMATION

Incompatibilities (Materials to avoid)	Heat and moisture.
Animal Toxicity Data:	Not available

The information published in this Material Safety Data Sheet has been compiled from data in various technical publications. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. We reserve the right to revise material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.