MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product (material) Name: Cadmium Iodide. Catalogue # C088.
Other Names:
Recommended Use: Used for negative staining in Electron Microscopy.

Supplier Name: **ProSciTech**
Postal Address: PO Box 111, Thuringowa Central Qld. 4817 Australia
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444
Fax Number: (07) 4773 2244
Emergency Contact: (07) 4773 9444 8:30am – 5:00pm, Monday to Friday

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification: Hazardous according to criteria of NOHSC.
Risk Phrases: R 23/25 Toxic by inhalation and if swallowed.
R 33 Danger of cumulative effects.
R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 68 Possible risk of irreversible effects.
Safety Phrases: S 22 Do not breathe dust.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

SECTION 3 - COMPOSITION /INFORMATION ON INGREDIENTS

SUBSTANCE:
Chemical Identity: Cadmium iodide.
Common Name(s):
CAS Number(s): 7790-80-9

MIXTURE:

Ingredients	Cas Number(s)	Proportion (%)
Cadmium iodide	7790-80-9	100

SECTION 4 - FIRST AID MEASURES

Swallowed: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.
Eye: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Inhaled: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
First Aid Facilities: Safety shower, eyebath.
Medical Attention & Special Treatment:

ADDITIONAL INFORMATION: Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.Possible risk of irreversible effects.Light sensitive.Carcinogen.Hygroscopic (absorbs moisture from the air).

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.

Hazards from Combustion Products: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Precautions for Fire Fighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Hazchem Code:

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Containment and clean up: Vacuum or sweep up material and place into a suitable disposal container. Reduce airborne dust and prevent scattering by moistening with water. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

SECTION 7 - HANDLING & STORAGE

Precautions for Safe Handling: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep container tightly closed. Avoid ingestion and inhalation. Store protected from light.

Conditions for Safe Storage: Store in a cool place in the original container and protect from sunlight. Store in a tightly closed container. Store protected from moisture. Store protected from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: OSHA Threshold Limit Value (PEL): 5ug/m3 Cadmium (TWA), 2.5ug/m3 (Action Level)
ACGIH Threshold Limit Value (TLV): 0.01 mg/m3 total dust, 0.002 mg/m3 respirable fraction for cadmium and compounds, as Cd; listed as A2, suspected human carcinogen. IARC class = 1

Biological Limit Values: No biological limit allocated.

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. 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 Protective Equipment: If the exposure limit is exceeded, a half-face high efficiency dust/mist respirator 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-face piece high efficiency dust/mist respirator my be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatlry agency or respirator supplier, whichever is the lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. Wear protective gloves and clean body-covering clothing. Use chemical safety goggles.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White Solid.
Odour:	Odourless.
pH:	N/A
Vapour pressure:	N/A
Vapour density:	N/A
Boiling point/range:	BP: 787°C.
Freezing/melting point:	MP: 388°C.
Solubility:	Soluble.
Specific gravity or density:	5.67
Flash Point:	N/A
Flammable (explosive) limits:	N/A
Ignition temperature:	N/A
Additional Information:	

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Conditions to avoid:	Incompatible materials.
Incompatible Materials:	Potassium.
Hazardous Decomposition Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Hazardous Reactions:	

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute and chronic health effects:	Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.Possible risk of irreversible effects.Light sensitive.Carcinogen.Hygroscopic (absorbs moisture from the air).
Possible routes of exposure:	Ingested, inhaled, skin contact and eye contact.
Range of effects following exposure:	Eye: Causes eye irritation. Skin: Causes skin irritation. Ingested: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. Human fatalities have been reported from acute poisoning. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn. Inhalation: Causes respiratory tract irritation. May cause liver and kidney damage.
Dose likely to cause injury:	
Delayed effects:	Prolonged or repeated inhalation may cause kidney and lung damage. Chronic ingestion may cause liver damage. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn. Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms could include skin rash, running nose and headache.
Relevant negative data:	Listed as A2, suspected human carcinogen. IARC class = 1.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:	Oral rat LD50: 222mg/kg. Investigated as a tumorigen and a reproductive effector.
Persistence and degradability:	
Mobility:	
Additional Information:	

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Methods:	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.
Special Precautions:	

SECTION 14 - TRANSPORT INFORMATION

UN Number:	UN2570
UN Proper Shipping Name:	Cadmium compound
Class and Subsidiary risk:	6.1
Packing Group:	III
Special Precautions for User:	Hazard Symbols: T N
Hazchem Code:	

SECTION 15 - REGULATORY INFORMATION

Poison Schedule Number:	None allocated

SECTION 16 - OTHER INFORMATION

Date of preparation of MSDS:	February 2009