

Electroplating - Acid



INDIUM CORPORATION OF AMERICA®/ EUROPE®/ ASIA PACIFIC®

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: INDIUM SULFAMATE PLATING BATH

MSDS Number: MSDS-IB002

Revised Date: 11 MARCH 2004

Product Use: PLATING BATH

MANUFACTURER:

In America:

The Indium Corporation of America
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Information: (315) 853-4900

EMERGENCY PHONE:

CHEMTREC 24 hrs.

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In Asia:

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29 Kian Teck Avenue
Singapore 628908
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2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry #	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
INDIUM	10.5	7440-74-6	0.1	0.1	-
		(EU)	-	0.1	0.3
		(Canada)	-	0.1	0.3
		(Singapore)	0.1	-	-
		(Mexico)	-	0.1	0.3
		(China)	-	0.1	0.3
SODIUM CHLORIDE	4.6	7647-14-5	N.E.	N.E.	N.E.
SULFAMIC ACID	2.6	5329-14-6	N.E.	N.E.	N.E.

SODIUM SULFAMATE	14.9	13845-18-6	N.E.	N.E.	N.E.
PROPRIETARY	67.5		N.E.	N.E.	N.E.
N.E. = Not established EU = EUROPEAN EXPOSURE LIMITS SYMBOL: X _n RISK PHRASES: R20/21/22, R36/37/38					

3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

✓ Eye ✓ Inhalation ✓ Skin ✓ Ingestion NTP IARC OSHA ✓ Not Listed

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause severe irritation and possible burns.

Ingestion: May cause burning and damage of mouth, stomach and other internal organs. Mildly toxic by ingestion.

Inhalation: Possible damage to nasal and respiratory passages and mucous membranes.

Skin Contact: May cause skin irritation or burns.

Chronic: Signs and symptoms of exposure are difficulty breathing, watery eyes, red irritating skin, abdominal pain and discomfort. Kidney and liver damage from injecting indium compounds has been reported based on limited animal testing but no systematic effects from human exposure has been reported.

Note: The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.

Warning: This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (Trace levels of listed metals).

4. FIRST AID MEASURES

Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: If patient is conscious, ONLY induce vomiting as directed by trained personnel. NEVER give anything by mouth to an unconscious person. Seek medical attention immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: Not established. **Method:** Not established.

Auto-ignition Temperature: Not established.

Flammable Limits: Limits not established. Not flammable. Will not burn.

Extinguishing Media: Use extinguishers appropriate for the surrounding fire conditions.

Special Fire Fighting Procedures: Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Isolate spill and clean up with absorbent or neutralize. Place material in proper waste container. An approved air purifying respirator with acid gas/particulate cartridge and other personal protective equipment such as gloves is recommended. Dispose of in accordance with Federal, State and Local regulations. In Europe dispose of following the Special Waste Regulations. Indium may have reclaim value.

7. HANDLING AND STORAGE

Handling: Keep containers tightly closed when not in use. Use care to avoid spills. Wear appropriate personal protective equipment. Use good work practices when handling corrosive material. Always thoroughly wash your hands after handling this product. DO NOT touch or rub eyes until hands are washed.

Storage Precautions: Store product in tightly capped original containers in a cool, well ventilated and dry area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local and/or Mechanical (general) exhaust ventilation is recommended to control any air contaminants.

Personal protection:

Eyes: Wear chemical safety glasses/goggles. The addition of a face shield may be necessary during some work practices.

Respirator: A NIOSH approved air-purifying respirator with an acid gas/particulate filter is recommended under certain circumstances where airborne concentrations are expected to be elevated.

Skin: Compatible chemical resistant gloves. Rubber or vinyl gloves are recommended.

Other: Lab coat, apron, eyewash fountain in work area. Avoid the use of contact lenses in high fume areas.

Work/Hygienic Maintain good housekeeping. Clean up spills immediately. Good personal hygiene is essential. Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear or amber liquid	Boiling Point:	Not established
Odor:	Odorless	Melting Point:	Not applicable
Specific Gravity:	H ₂ O = 1	pH:	2 (Corrosive)
Vapor Pressure:	Not applicable.	Solubility in Water:	Soluble
Vapor Density:	Not applicable		

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: May give off toxic fumes and possible oxides of constituents when exposed to unusually high temperatures. Not established.

Incompatible Materials: Avoid contact with bases and oxidizers.

Hazardous Decomposition / Toxic fumes may form at elevated temperatures.

Combustion:

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity:	National Toxicology Program (NTP):	No
	Occupational Safety & Health Administration (OSHA):	No
	U.N. International Agency for Research on Cancer (IARC):	No
LD50:	Not established.	LC50: Not established.
Irritancy of Product:	May be an irritant	Mutagenicity: Not established
Sensitization to Product:	Not established	Teratogenicity: Not established
Reproductive Toxicity:	Not established	Synergistic Products: Not established

12. ECOLOGICAL INFORMATION

This section is subject to future development.

Biodegradability: Data not established.

Aquatic Toxicity: Data not established.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Scrap indium metal may have some value. Contact a commercial reclaimer for recycling. Otherwise, dispose of in accordance with all Federal, State and Local environmental regulations. In Europe follow the Special Waste Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S., 8, UN3264, III (sulfamic acid, sodium chloride)

15. REGULATORY INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated hereunder (29 CFR 1910.1200 ET. SEQ.).

The information in this Material Safety Data Sheet meets the requirements of the EU under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (CHIP 2) Regulation 6.

This product has been classified in accordance with the hazard criteria of the Commission Directive 91/155/EEC and EH40.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

WHMIS: Class E Corrosive Material

This product has been classified in accordance with the guidelines, as set, by the Dept of Industrial Health of the Republic of Singapore.

This product has been classified using the Chinese Occupational Exposure Limit of Hazardous Agents in the Workplace, GBZ2-2002.

This product has been classified in accordance with the Mexican regulations NOM-018-STPS-2000 and NOM-010-STPS-1999.

California Prop 65: Warning: This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (Trace levels of listed metals).

SARA 313 listing - 40 CFR 372.65: None

All ingredients are listed on the EPA TSCA Inventory.

EC Classification, Packaging and Labeling Requirements:

Symbol and Hazard Classification of Product X_n

Risk Phrases:

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed
R36/37/38 Irritating to eyes, respiratory system and skin

Safety Phrases:

S20/21 When using do not eat, drink or smoke
S23 Do not breathe fumes/gas/vapor/spray
S24/25 Avoid contact with skin and eyes
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection
S28 After contact with skin wash immediately with plenty of soap and water

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	2
	Fire:	0
	Reactivity:	1

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Approved by: Nancy Swarts, Indium Corporation of America

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