

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: (4N) 99.99% Indium Sulfamate Solution / Plating Bath

Product Code: IN-SMAT-04-SOL

CAS Number: 66027-93-8

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
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Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

Eye

Inhalation

Skin

Ingestion

CARCINOGEN LISTED IN:

NTP

IARC

OSHA

Not Listed



Signal Word: Warning

Hazard statement(s)

H303 May be harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H333 May be harmful if inhaled

Precautionary statement(s)

P233 Keep container tightly closed
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection
P362 Take off contaminated clothing and wash before reuse
P301 + P314 IF SWALLOWED: Get Medical advice/attention if you feel unwell
P302 + P352 IF ON SKIN: Wash with plenty of soap and water
P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + 351 F IN EYES: Rinse continuously with water for several minutes (15 mins)
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.

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

INDIUM SULFAMATE

CAS Registry #/EINECS

66027-93-8/266-072-2

SECTION 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.

SECTION 5. FIREFIGHTING 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.

SECTION 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.

SECTION 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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: 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/splash 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear or amber liquid

Odor: Odorless

Specific Gravity: H₂O = 1

Vapor Pressure: N/A.

Vapor Density:N/A.

Boiling Point: Not established

Melting Point: N/A

pH: 2 (Corrosive)

Solubility in Water: Soluble

Note: when using product the pH is adjusted as needed. Review the Product Data Sheet for proper use of the plating bath solution. Preferred pH is 1.5-2.

SECTION 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/Combustion: Toxic fumes may form at elevated temperatures.

Hazardous Polymerization: Will not occur.

SECTION 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.

LD50: Not established.

SECTION 12. ECOLOGICAL INFORMATION

Contains a substance that is harmful to aquatic organisms, and may cause long term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

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.

SECTION 14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

Shipping Name: UN 3264, Corrosive Liquid, Acidic, Inorganic, N.O.S., 8, PGIII (sulfamic acid, indium sulfamate mixture)

North America Emergency Guidebook – Guide 154

Marine pollutant: No

SECTION 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.).

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

Canadian WHMIS: Class E Corrosive Material

This product has been classified in accordance with the guidelines 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). (There is a slight chance that trace levels of lead can be found).

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 Xn

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

R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.

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

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.