

MATERIAL SAFETY DATA SHEET (MSDS)**THORIN INDICATOR AR****1. Product Identification**

Synonyms: Disodium 4-[(o-arsonophenyl)azo]-3-hydroxynaphthalene-2,7-disulphona te; Thoronol
CAS No.: 3688-92-4

Product Coad: T0204700005

Molecular Weight: 576.3
Chemical Formula: C₁₆H₁₁N₂O₁₀S₂Na₂As
Product Codes: T0133

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Thorin	3688-92-4	90 - 100%	Yes

3. Hazards Identification**Emergency Overview**

DANGER! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. POSSIBLE CARCINOGEN. CONTAINS ARSENIC. HANDLE IN A FUME HOOD. HYGROSCOPIC. THE PHYSICAL CHEMICAL AND TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN THOROUGHLY INVESTIGATED. TARGET ORGAN(S): Liver, kidneys, skin, lungs, lymphatic system.

Health Rating: 3 - Severe (Cancer Causing)

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate (Life)

Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation: None identified.

Ingestion: None identified.

Skin Contact: None identified.

Eye Contact: None identified.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

4. First Aid Measures

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: In case of contact, flush skin with water.

Eye Contact: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

5. Fire Fighting Measures

Fire: Not expected to be a fire hazard.

Explosion: No information found.

Fire Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Information: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode.

6. Accidental Release Measures

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.

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7. Handling and Storage

Keep container tightly closed. Store in secure poison area. This chemical has delayed life threatening characteristics that require specific approaches for safe handling including special protective equipment, fume hoods and glove boxes. Strict adherence to OSHA standards, safety programs and protocol systems are required. 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.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

For arsenic, As:

- OSHA Permissible Exposure Limit (PEL) - 10 ug/m3 (TWA), 5 ug/m3 (Action Level), cancer hazard.
- ACGIH Threshold Limit Value (TLV) - 0.01 mg/m3 (TWA), A1- confirmed human carcinogen.

Ventilation System:

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. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the substance is apparent and engineering controls are not feasible, consult an industrial hygienist. 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.

9. Physical and Chemical Properties

Appearance: Yellow-orange crystalline powder.

Odor: Odorless.

Solubility: Appreciable (> 10%)

Specific Gravity: No information found.

pH: No information found.

% Volatiles by volume @ 21C (70F): 0

Boiling Point: No information found.

Melting Point: No information found.

Vapor Density (Air=1): Not applicable.

Vapor Pressure (mm Hg): Not applicable.

Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Oxides of nitrogen, oxides of sulfur, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizing agents.

Conditions to Avoid: No information found.

11. Toxicological Information

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
Thorin (3688-92-4)	Yes	No	1

12. Ecological Information

Environmental Fate: No information found.

Environmental Toxicity: No information found.

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13. Disposal Considerations

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 federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Thorin (3688-92-4)	Exempt	Yes	No	Yes

-----\Chemical Inventory Status - Part 2\-----

--Canada--

Ingredient	Korea	DSL	NDSL	Phil.
Thorin (3688-92-4)	No	No	No	No

-----\Federal, State & International Regulations - Part 1\-----

-SARA 302- -----SARA 313-----

Ingredient	RQ	TPQ	List	Chemical Catg.
Thorin (3688-92-4)	No	No	No	Arsenic comp

-----\Federal, State & International Regulations - Part 2\-----

-RCRA- -TSCA-

Ingredient	CERCLA	261.33	8(d)
Thorin (3688-92-4)	1	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No

SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No

Reactivity: No (Pure / Solid)

WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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MATERIAL SAFETY DATA SHEET (MSDS)**THORIN INDICATOR AR****16. Other Information**

NFPA Ratings: Health: **3** Flammability: **0** Reactivity: **0**

Label Hazard Warning:

DANGER! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. POSSIBLE CARCINOGEN. CONTAINS ARSENIC. HANDLE IN A FUME HOOD. HYGROSCOPIC. THE PHYSICAL CHEMICAL AND TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN THOROUGHLY INVESTIGATED. TARGET ORGAN(S): Liver, kidneys, skin, lungs, lymphatic system.

Label Precautions: Avoid contact with eyes, skin, clothing. Do not breathe dust.

Store in a tightly closed container. Use with adequate ventilation.

Wash thoroughly after handling. INTENDED FOR R & D USE ONLY. NOT ON THE TSCA INVENTORY.

Label First Aid: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Product Use: Laboratory Reagent. Research and Development Use Only.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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