
MSDS Number: **S4202** * * * * *Effective Date: 07/11/05* * * * * *Supersedes: 08/10/04*



SODIUM IODIDE

1. Product Identification

Synonyms: Sodium iodine; Sodium moniodide

CAS No.: 7681-82-5

Molecular Weight: 149.89

Chemical Formula: NaI

Product Codes:

J.T. Baker: 3748, 3750

Mallinckrodt: 1136, 1141, 1143, 1206

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	
Hazardous			
-----	-----	-----	-----
Sodium Iodide	7681-82-5	90 - 100%	
Yes			

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. CHRONIC EXPOSURE MAY PRODUCE IODISM

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate (Life)

Flammability Rating: 0 - None

Reactivity Rating: 1 - Slight

Contact Rating: 2 - Moderate

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

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

Inhalation of dust may cause coughing, choking, with variable symptoms of headache, dizziness, and weakness. May cause lung edema.

Ingestion:

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Skin Contact:

Causes irritation to skin. Symptoms include redness, itching, and pain.

Eye Contact:

Causes irritation, redness, and pain.

Chronic Exposure:

A mild toxic syndrome "iodism" may result from chronic iodide overdoses. May cause salivation, sneezing, conjunctivitis, headache, fever, laryngitis, bronchitis, stomatitis, and parotitis (iodine mumps). Prolonged or repeated skin exposure may cause skin rashes.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

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

Skin Contact:

Wipe off excess material from skin then 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.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. Small amounts of residue may be flushed to sewer with plenty of water.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Protect from light. 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:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. 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 dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. 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-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White granular or colorless crystals

Odor:

Odorless.

Solubility:

184 g/100 ml water @ 25C

Specific Gravity:

3.67

pH:

8 - 9.5

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

0

Boiling Point:

1300C (2372F)

Melting Point:

651C (1204F)

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

1 @ 767C (1413F)

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Absorbs up to 5% moisture on exposure to air and becomes brown due to liberation of iodine.

Hazardous Decomposition Products:

When heated to decomposition it emits toxic fumes of iodine and sodium oxide.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Alkali metals, chloral hydrate, acids tartaric acid, potassium chlorate, metallic salts, iodine. Reacts violently with bromide trifluoride, perchloric acid, and oxidants.

Conditions to Avoid:

Light and incompatibles.

11. Toxicological Information

Toxicological Data:

Oral rat LD50: 4340 mg/kg. Irritation data: skin rabbit, standard Draize: 500 mg/24H, moderate; eye rabbit, standard Draize: 100 mg/24H, moderate. Investigated as a reproductive effector.

Reproductive Toxicity:

The occasional use of iodides for asthma in pregnancy has resulted in fetal death, severe goiter and cretanoid appearance of the newborn.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	

Sodium Iodide (7681-82-5)	No	No	None

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:
No information found.

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

Sodium Iodide (7681-82-5)	Yes	Yes	Yes	
Yes				

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada-- DSL	NDSL	Phil.

Sodium Iodide (7681-82-5)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302- RQ	TPQ	-----SARA 313----- List	Chemical Catg.

Sodium Iodide (7681-82-5)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)

Sodium Iodide (7681-82-5)	No	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)

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.

16. Other Information

NFPA Ratings: Health: **2** Flammability: **0** Reactivity: **1**

Label Hazard Warning:

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. CHRONIC EXPOSURE MAY PRODUCE IODISM

Label Precautions:

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Label First Aid:

In case of contact, wipe off excess material from skin then immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. In all cases, get medical attention.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3.

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