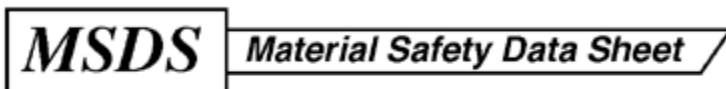


MSDS Number: **S3026** * * * * * *Effective Date: 06/19/07* * * * * * *Supersedes: 05/07/07*



From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

SODIUM BISMUTHATE

1. Product Identification

Synonyms: Sodium bismuth oxide; bismuth sodium oxide

CAS No.: 12232-99-4

Molecular Weight: 279.97

Chemical Formula: NaBiO₃

Product Codes: 0352

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Hazardous		
-----	-----	-----

Sodium Bismuthate	12232-99-4	100%
Yes		

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED. MAY CAUSE KIDNEY DAMAGE.

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 (Life)

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

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

Can be a route for absorption into body. Bismuth is moderately toxic.

Ingestion:

Moderately toxic with similar symptoms of lead poisoning (abdominal pain, nausea, and vomiting). Large doses cause serious diarrhea and death.

Skin Contact:

A mild irritant if exposed over a long time.

Eye Contact:

A mechanical irritant.

Chronic Exposure:

Continued absorption into body can lead to permanent kidney damage.

Aggravation of Pre-existing Conditions:

Persons with impaired kidney function may be more susceptible to the effects of the substance.

4. First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

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

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact:

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

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: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

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:

Yellow or brownish yellow powder. Somewhat hygroscopic.

Odor:

Odorless.

Solubility:

Insoluble in cold water. Decomposes by hot water.

Specific Gravity:

No information found.

pH:

No information found.

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

0

Boiling Point:

Not applicable.

Melting Point:

No information found.

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Slowly decomposes on keeping; decomposition accelerated by moisture.

Hazardous Decomposition Products:

Toxic metal fumes may form when heated to decomposition. Decomposes in hot water forming bismuth oxide and sodium hydroxide, and liberating oxygen.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Acids.

Conditions to Avoid:

Heat, moisture, incompatibles.

11. Toxicological Information

Oral rat LD50: 420 mg/kg Investigated as a mutagen.

-----\Cancer Lists\-----

Ingredient Category	---NTP Carcinogen---		IARC
	Known	Anticipated	
Sodium Bismuthate (12232-99-4) None	No	No	

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

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-----\Chemical Inventory Status - Part 1\-----
-----
Ingredient                                TSCA  EC   Japan
Australia
-----
Sodium Bismuthate (12232-99-4)           Yes  Yes  No
Yes

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-----\Chemical Inventory Status - Part 2\-----
-----
Ingredient                                Korea  DSL  NDSL
Phil.
-----
Sodium Bismuthate (12232-99-4)           Yes  Yes  No
No

```

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-----\Federal, State & International Regulations - Part 1\-----
-----
313-----
Ingredient                                -SARA 302-  -SARA
Chemical Catg.                            RQ      TPQ      List
-----
Sodium Bismuthate (12232-99-4)           No      No      No
No

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-----\Federal, State & International Regulations - Part 2\-----
-----
TSCA-
Ingredient                                CERCLA  261.33  8 (d)
-----
Sodium Bismuthate (12232-99-4)           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: **0**

Label Hazard Warning:

WARNING! HARMFUL IF SWALLOWED. MAY CAUSE KIDNEY DAMAGE.

Label Precautions:

- Avoid breathing dust.
- Avoid contact with eyes, skin and clothing.
- Keep container closed.
- Wash thoroughly after handling.

Label First Aid:

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Product Use:

Laboratory Reagent.

Revision Information:

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

Disclaimer:

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