

MSDS**Material Safety Data Sheet**

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: 202-483-7616

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.

NEUTRASORB® ACID NEUTRALIZER**1. Product Identification**

Synonyms: Acid spill clean-up
CAS No: Not applicable to mixtures.
Molecular Weight: Not applicable to mixtures.
Chemical Formula: Not applicable to mixtures.
Product Codes: 4442, 4456

2. Composition/Information on Ingredients

Ingredient	CAS No.	Percent	Hazardous
Bromocresol Purple Indicator grade	115-40-2	< 0.1%	No
Calcium Carbonate	471-34-1	5 - 25%	Yes
Magnesium Oxide	1309-48-4	25 - 45%	Yes
Sodium Carbonate	497-19-8	35 - 55%	Yes

3. Hazards Identification**Emergency Overview**

DANGER! MAY CAUSE EYE BURNS. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN AND RESPIRATORY TRACT.

J.T. Baker SAF-T-DATA(tm) Ratings

(Provided here for your convenience)

Health:	Flammability:	Reactivity:	Contact:
2 - Moderate	0 - None	1 - Slight	2 - Moderate
Lab Protection Equip:	GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES		
Storage Color Code:	Orange (General Storage)		

Potential Health Effects**Inhalation:**

Inhalation of dust may cause irritation to the respiratory tract. Symptoms from excessive inhalation of dust may include coughing and difficult breathing. Excessive contact is known to cause damage to the nasal septum. Inhalation can cause a flu-like illness (metal fume fever). This 24- to 48-hour illness is characterized by chills,

fever, aching muscles, dryness in the mouth and throat and headache.

Ingestion:

Sodium carbonate is only slightly toxic, but large doses may be corrosive to the gastro-intestinal tract where symptoms may include severe abdominal pain, vomiting, diarrhea, collapse and death. Magnesium oxide is slowly absorbed. Ingestion may cause rapid bowel evacuation.

Skin Contact:

Excessive contact may cause irritation with blistering and redness. Solutions may cause severe irritation or burns.

Eye Contact:

Contact may be corrosive to eyes and cause conjunctival edema and corneal destruction. Risk of serious injury increases if eyes are kept tightly closed. Other symptoms may appear from absorption of sodium carbonate into the bloodstream via the eyes.

Chronic Exposure:

Prolonged or repeated skin exposure may cause sensitization. Excessive oral doses of calcium carbonate may produce alkalosis and hypercalcemia.

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:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Immediately flush skin with plenty of soap and 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.

Note to Physician:

Consider endoscopy in all suspected cases of sodium carbonate poisoning. Perform blood analysis to determine if dehydration, acidosis, or other electrolyte imbalances occurred.

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered an explosion hazard, but sodium carbonate may explode when applied to red-hot aluminum. Magnesium oxide reacts violently or ignites with interhalogens such as chlorine trifluoride (ClF₃) or bromine pentafluoride (BrF₅), and incandescently with phosphorus pentachloride (PCl₅).

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. Isolate from incompatible substances. 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.

NEUTRASORB is NOT recommended for spills of hydrofluoric acid, fuming sulfuric acid, fuming nitric acid, or peroxy(per-) organic acids.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

For Magnesium Oxide Fume:

- OSHA Permissible Exposure Limit (PEL) -
15 mg/m³ (TWA).
- ACGIH Threshold Limit Value (TLV) -
10 mg/m³ (TWA).

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 Respirator (NIOSH Approved)

If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. 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 protective gloves and clean body-covering clothing.

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:

Purple granules.

Odor:

Odorless.

Solubility:

Slightly soluble in water (0.1 - 1%).

Specific Gravity:

No information found.

pH:

No information found.

% Volatiles by volume @ 21°C (70°F):

0

Boiling Point:

Not applicable.

Melting Point:

Not applicable.

Vapor Density (Air=1):

Not applicable.

Vapor Pressure (mm Hg):

Not applicable.

Evaporation Rate (BuAc=1):

Not applicable.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Hygroscopic. Readily absorbs moisture from the air. Solutions are strong bases.

Hazardous Decomposition Products:

Oxides of carbon, sodium oxide and calcium oxide..

Hazardous Polymerization:

Will not occur.

Incompatibilities:

For sodium carbonate: fluorine, aluminum, phosphorous pentoxide, sulfuric acid, zinc, lithium, moisture, calcium hydroxide and 2,4,6-trinitrotoluene. Reacts violently with acids to form carbon dioxide. For magnesium oxide: acids, interhalogens, phosphorus pentachloride, and chlorine trifluoride. For calcium carbonate: acids, fluorine, magnesium with hydrogen.

Conditions to Avoid:

Moisture, heat, dusting and incompatibles.

11. Toxicological Information

For Sodium Carbonate:

Oral rat LD50: 4090 mg/kg; inhalation rat LC50: 2300 mg/m³/2H; irritation eye rabbit: 50 mg severe; investigated as a mutagen, reproductive effector. Magnesium oxide: investigated as a tumorigen.

Cancer Lists			
Ingredient	---NTP Carcinogen---		IARC Category
Bromocresol Purple Indicator grade (115-40-2)	No	No	None
Calcium Carbonate (471-34-1)	No	No	None
Magnesium Oxide (1309-48-4)	No	No	None
Sodium Carbonate (497-19-8)	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									
Ingredient	TSCA	EC	Japan	Australia	Korea	---Canada---		Phil.	
Bromocresol Purple Indicator grade (115-40-2)	Yes	Yes	Yes	Yes	No	DSL	NDSL	Yes	Yes

Calcium Carbonate (471-34-1)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Magnesium Oxide (1309-48-4)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Sodium Carbonate (497-19-8)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Federal, State & International Regulations

Ingredient	--SARA 302--		-----SARA 313-----		CERCLA	-RCRA- 261.33	-TSCA- 8(d)
	RQ	TPQ	List	Chemical Catg.			
Bromocresol Purple Indicator grade (115-40-2)	No	No	No	No	No	No	No
Calcium Carbonate (471-34-1)	No	No	No	No	No	No	No
Magnesium Oxide (1309-48-4)	No	No	No	No	No	No	No
Sodium Carbonate (497-19-8)	No	No	No	No	No	No	No

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

SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No Reactivity: No (Mixture / Solid)

Australian Hazchem Code: No information found. Australian Poison Schedule: No information found.

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:

DANGER! MAY CAUSE EYE BURNS. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN AND RESPIRATORY TRACT.

Label Precautions:

Do not get in eyes, on skin, or on clothing.
 Avoid breathing dust.
 Keep container closed.
 Use with adequate ventilation.
 Wash thoroughly after handling.

Label First Aid:

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. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In all cases, get medical attention.

Product Use:

Spill Clean-Up

Revision Information:

MSDS Section(s) changed since last revision of document include: 3, 16.

Disclaimer:

Mallinckrodt Baker, Inc. 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. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared By: Strategic Services Division
 Phone Number: (314) 539-1600 (U.S.A.)

