

**Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.
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Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2161
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. and Canada
Chemtec: 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.

TEAM® 'Low Na+' Liquid Acid Neutralizer**1. Product Identification**

Synonyms: None
CAS No: Not applicable to mixtures.
Molecular Weight: Not applicable to mixtures.
Chemical Formula: Not applicable to mixtures.
Product Codes: 4555

2. Composition/Information on Ingredients

Ingredient	CAS No.	Percent	Hazardous
1,2-Dihydroxyanthraquinone	72-48-0	< 1%	No
Triethanolamine	102-71-6	30 - 65%	Yes
Water	7732-18-5	35 - 70%	No

3. Hazards Identification**Emergency Overview**

WARNING! HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION AND SEVERE EYE IRRITATION.

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

(Provided here for your convenience)

Health: 1 - Slight	Flammability: 1 - Slight	Reactivity: 2 - Moderate	Contact: 2 - Moderate
Lab Protection Equip:	GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES		
Storage Color Code:	Orange (General Storage)		

Potential Health Effects**Inhalation:**

No adverse effects expected since triethanolamine has a low vapor pressure.

Ingestion:

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. Concentrated triethanolamine, in large doses, may cause burns in the mouth, pharynx, and esophagus.

Skin Contact:

May cause irritation, redness, and pain, especially on prolonged or repeated contact.

Eye Contact:

Causes irritation, redness, and pain. Concentrated triethanolamine causes severe irritation, redness, pain, and may burn.

Chronic Exposure:

Repeated ingestion has caused kidney and liver damage in animals.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Not expected to require first aid measures.

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. 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:

Flash point: 179°C (354°F) CC

Slight fire hazard when exposed to heat or flame.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Dry chemical, alcohol foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool. Water can also be used to flush material from fire and to dilute spills to non-combustible mixtures. Water or foam may cause frothing.

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. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

7. Handling and Storage

Keep in a tightly closed light-resistant container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Triethanolamine is suitably handled in stainless steel equipment. Avoid contact with copper and copper alloys. Do not use aluminum for storage of aqueous solutions of triethanolamine. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

For Triethanolamine:

- ACGIH Threshold Limit Value (TLV) -
5 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, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

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 a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Purple liquid.

Odor:

Ammonia odor.

Solubility:

Complete (100%)

Specific Gravity:

1.08

pH:

No information found.

% Volatiles by volume @ 21°C (70°F):

No information found.

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. Darkens on exposure to air or light.

Hazardous Decomposition Products:

Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

For Triethanolamine: Copper, copper alloys, galvanized iron, acids, and oxidizers
For 1,2-Dihydroxyanthraquinone: Strong oxidizers, strong bases.

Conditions to Avoid:

Heat, flame, ignition sources, air, light and incompatibles.

11. Toxicological Information

For Triethanolamine: Oral rat LD50: 8000 mg/kg; Irritation data, rabbit: 560 mg/24H (skin) mild; 5620 ug (eye)

severe. Investigated as a tumorigen and a mutagen. For 1,2-Dihydroxyanthraquinone: irritation (std Draize) eye rabbit: 500 mg/24H, mild. Investigated as a mutagen.

Cancer Lists

Ingredient	—NTP Carcinogen—		IARC Category
	Known	Anticipated	
1,2-Dihydroxyanthraquinone (72-48-0)	No	No	None
Triethanolamine (102-71-6)	No	No	None
Water (7732-18-5)	No	No	None

12. Ecological Information

Environmental Fate:

Following data for triethanolamine: When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material may leach into groundwater. When released into the soil, this material is not expected to evaporate significantly. When released into the soil, this material is expected to have a half-life between 1 and 10 days. When released into water, this material is expected to readily biodegrade. When released into the water, this material is expected to have a half-life between 1 and 10 days. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to be readily removed from the atmosphere by dry and wet deposition. When released into the air, this material is expected to have a half-life between 1 and 10 days.

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—		
						DSL	NDSL	Phil.
1,2-Dihydroxyanthraquinone (72-48-0)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Triethanolamine (102-71-6)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

Federal, State & International Regulations

Ingredient	—SARA 302—		—SARA 313—		—RCRA—		—TSCA—
	RQ	TPQ	List	Chemical Catg.	CERCLA	261.33	8(d)
1,2-Dihydroxyanthraquinone (72-48-0)	No	No	No	No	No	No	No
Triethanolamine (102-71-6)	No	No	No	No	No	No	No
Water (7732-18-5)	No	No	No	No	No	No	No

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

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

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: 1 Reactivity: 1

Label Hazard Warning:

WARNING! HARMFUL IF SWALLOWED. CAUSES SKIN IRRITATION AND SEVERE EYE IRRITATION.

Label Precautions:

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

Label First Aid:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3, 4, 5, 6, 7, 8, 10, 11, 12, 15, 16.

Disclaimer:

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Prepared By: Strategic Services Division

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