



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: R-273 Combination Total Hardness Indicator Powder
Description: Test Reagent
Suggested Use: Industrial Water Treatment
Restrictions on Use: Do not mix with other industrial chemicals
Supplier: Advanced Chemical Technology, Inc.
8728 Utica Avenue
Rancho Cucamonga, CA 91730
Telephone: 1-909-980-4556 or 1-800-527-9607
Fax: 1-909-980-9366
Emergency Phone: 1-800-255-3924 (CHEMTEL)

2. HAZARDS IDENTIFICATION

Classification

GHS Classification: Serious Eye Irritation (Category 2A)

GHS Label Elements

Pictogram:



Signal Word: Warning

Hazard Statements: H316: Causes mild skin irritation
H319: Causes serious eye irritation

Precautionary Statements: P264: Wash hands thoroughly after handling.
P 273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention/advice.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P501 - Dispose of contents/container to comply with local, state and federal regulations.

HMIS Classification: Health Hazard: 1
Flammability: 0
Physical Hazards: 0

NFPA Rating: Health Hazard: 1
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation: Dust may cause nasal irritation and sneezing.



Skin: Moderately irritating. Dehydrating effect and allergic reactions may occur for some sensitive people.
Eyes: Irritating to eyes. Particles in eye may cause severe irritation and damage to tissue.
Ingestion: Immediate irritation and possible damage to mucous membranes, Circulatory depression, persistent vomiting and diarrhea (Boron Compounds), shock.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>Concentration</u>
Eriochrome Black T	1787-61-7	Proprietary
Sodium Borate	1303-96-4	Proprietary
Sodium Carbonate	497-19-8	Proprietary
Sodium Chloride	7647-14-5	Proprietary

Synonyms:

4. FIRST AID MEASURES

If Inhaled: Remove person to fresh air, loosen any tight clothing. Obtain medical attention if breathing is difficult.
Skin Contact: Immediately remove clothing under safety shower. Flush all affected areas with large amounts of water for at least 15 minutes.
Eye Contact: Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Obtain medical attention immediately.
If Ingested: Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

5. FIREFIGHTING MEASURES

Flammability Overview: May explode upon exposure to heat or flames.
Flash Point: Not Applicable
Extinguishing Media: Use water-spray, foam, dry chemical, or carbon dioxide.
Special Protective Equipment for Firefighters: Wear a self-contained breathing apparatus (SCBA) for firefighting if necessary.
Hazardous Combustion Products: Not Established

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions: Prevent further leakage or spillage if safe to do so. Prevent from entering drains and waterways. Discharge into the environment must be avoided.



Containment and Clean Up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. If assistance is needed call CHEMTEL or emergency services.

7. HANDLING AND STORAGE

Safe Handling: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Always ensure adequate ventilation.

Safe Storage: Keep containers tightly closed in a dry well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store away from incompatible materials. Keep out of direct sunlight and heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	CAS Number	Exposure Limit	Basis
Eriochrome Black T	1787-61-7	Not Established	ACGIH Threshold Value (TWA) (mg/m ³)
		Not Established	OSHA PEL (TWA) (mg/m ³)
Sodium Borate	1303-96-4	Not Established	ACGIH Threshold Value (TWA) (mg/m ³)
		Not Established	OSHA PEL (TWA) (mg/m ³)
Sodium Carbonate	497-19-8	Not Established	ACGIH Threshold Value (TWA) (mg/m ³)
		Not Established	OSHA PEL (TWA) (mg/m ³)
Sodium Chloride	7647-14-5	Not Established	ACGIH Threshold Value (TWA) (mg/m ³)
		Not Established	OSHA PEL (TWA) (mg/m ³)

Personal Protective Equipment

Eye Protection: Wear tightly fitting safety goggles or safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH. Have eye-wash stations available where eye contact can occur.

Hand Protection: Handle with chemical-resistant gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves. Wash and dry hands after use.

Skin Protection: Protect skin by wearing pants, close toe shoes and long sleeves. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Safety showers should be located in the work area where skin contact can occur.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a NIOSH-approved full-face respirator with appropriate cartridges. For oxygen deficient atmospheres, use a NIOSH approved air-supplied respirator. Respiratory protection may be needed for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA 29 CFR 1910.134.

General Controls: Always ensure adequate ventilation and that working areas contain safety showers and eye wash stations. Handle material in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES



Physical State:	Powder
Color:	Grayish Blue
Odor:	None
Odor Threshold:	Not Applicable
pH:	Not Applicable
Melting/Freezing Point:	Not Applicable
Boiling Point:	Not Applicable
Flash Point:	Not Established
Evaporation Rate:	Not Applicable
Flammability (solid, gas):	Not Established
Flammability/Explosion Limits:	Not Established
Vapor Pressure @ 20°C:	Not Applicable
Vapor Density:	Not Established
Specific Gravity:	Not Applicable
Density:	Not Applicable
Solubility in Water:	Partial
Partition Coefficient:	Not Established
Autoignition Temperature:	Not Established
Decomposition Temperature:	Not Established
Viscosity:	Not Established

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under recommended use and storage conditions.
Conditions and Materials to Avoid:	Do not mix with other industrial chemicals
Hazardous Decomposition Products:	Not Established

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	CAS Number	Test	Toxicity
Eriochrome Black T	1787-61-7	Oral LD50 (Mouse)	Not Established
		Skin	Not Established
		Inhalation LC50-1H (Rat)	Not Established
Sodium Borate	1303-96-4	Oral LD50 (Mouse)	Not Established
		Skin	Not Established
		Inhalation LC50-1H (Rat)	Not Established
Sodium Carbonate	497-19-8	Oral LD50 (Mouse)	Not Established
		Skin	Not Established
		Inhalation LC50-1H (Rat)	Not Established
Sodium Chloride	7647-14-5	Oral LD50 (Mouse)	Not Established
		Skin	Not Established
		Inhalation LC50-1H (Rat)	Not Established

Potential Health Effects

Inhalation: Dust may cause nasal irritation and sneezing.



Skin: Moderately irritating. Dehydrating effect and allergic reactions may occur for some sensitive people.

Eyes: Irritating to eyes. Particles in eye may cause severe irritation and damage to tissue.

Ingestion: Immediate irritation and possible damage to mucous membranes, Circulatory depression, persistent vomiting and diarrhea (Boron Compounds), shock.

Signs and Symptoms of Exposure: Not Established

Chronic Effects of Long-term Exposure: Any person with pre-disposition to sensitivity may be more susceptible to substance effects.

Carcinogenicity: No component of this product at levels greater than 0.1% is identified as carcinogenic by IARC, ACGIH, or OSHA.

12. ECOLOGICAL INFORMATION

Acute Ecotoxicity

Component	CAS Number	Organism	Ecotoxicity
Eriochrome Black T	1787-61-7	Not Established	Not Established
Sodium Borate	1303-96-4	Not Established	Not Established
Sodium Carbonate	497-19-8	Not Established	Not Established
Sodium Chloride	7647-14-5	Not Established	Not Established

Ecological Effects

Persistence and Degradability: Not Established

Bioaccumulation Potential: Not Established

Mobility in Soil: Not Established

Other Adverse Effects: Not Established

13. DISPOSAL CONSIDERATIONS

Disposal: Surplus and non-recyclable material should be treated as hazardous waste and be disposed of by a licensed disposal company. Material should be disposed in accordance with all local, state, and federal regulations. Regulations vary by region. Do not release into sewers or waterways.

Contaminated Packaging: Disposal must comply with CFR Title 10, part 40/ Dispose of all waste according to Federal, State and Local regulations.

14. TRANSPORT INFORMATION

DOT Information

Proper Shipping Name: Non- Regulated



Advanced Chemical Technology, Inc.

R-273

SAFETY DATA SHEET

Version 1.0
Effective Date: 06/01/2015

UN Number:
Hazard Class:
Packing Group:

Reportable Quantity (RQ):

Marine Pollutant: Not Established

Note:

15. REGULATORY INFORMATION

US Federal

SARA 302 Components: Not Established
SARA 311/312 Hazards: Not Established
SARA 313 Components: This product does not contain a Section 313 listed toxic chemical subject to release reporting requirements.

TSCA Inventory: All chemical components are listed on TSCA inventory.

European Union

EC Inventory: Not Established

State Regulations

This product does not contain chemicals currently on the California list of known carcinogens and/or reproductive toxins.

CA Prop 65: This product does not contain chemicals currently on the California list known carcinogens and/or reproductive toxins.

16. OTHER INFORMATION

SDS Version: 1.0
Revision Date: 06/01/2015
Disclaimer: The information contained in this document was carefully compiled and is believed to be accurate. The information represents the present state of our knowledge and is applicable to the product with the regard to appropriate safety precautions. However, it does not represent any guarantee of the properties of the product. Advanced Chemical Technology, Inc. shall not be held liable for any damages resulting from handling or from contact with the above product. It is the responsibility of the purchaser to determine the suitability of the product for their particular purposes. Nothing contained herein shall be construed to be a recommendation to use, or as a license to operate under, or to infringe any existing patents. For product information call Advanced Chemical Technology, Inc., 1-909-980-4556.