

# Safety Data Sheet

## ALCIAN BLUE SOLUTION, pH 1.0

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Alcian Blue Solution, pH 1.0

**Catalog Numbers:** SO-271, E-324-1, E-330-3A

**Company Identification:** Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

H290-Corrosive to metals: 1

H314-Skin corrosion/irritation: 1B

H318-Serious eye damage/eye irritation: 1

1% of the mixture consists of ingredients of unknown acute toxicity.

#### Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

#### Hazard Statements:

H290-May be corrosive to metals

H314-Causes severe skin burns and eye damage

H318-Causes serious eye damage

## Precautionary Statements:

P234-Keep only in original container.

P260-Do not breathe dusts or mists.

P264-Wash thoroughly after handling.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310-Immediately call a Poison Center or doctor/physician.

P363-Wash contaminated clothing before reuse.

P390-Absorb spillage to prevent material damage.

P405-Store locked up.

P406-Store in corrosive resistant/container with a resistant inner liner.

P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7647-01-0	Hydrochloric Acid	<1 v/v
33864-99-2	Alcian Blue 8GX	1 w/v
7732-18-5	Water	balance

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical attention.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek immediate medical attention.

**Oral Exposure:** If swallowed, seek immediate medical advice. Rinse mouth with water. Do NOT induce vomiting.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus, in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

**Hazardous Combustion Products:** Carbon oxides, nitrogen oxides, copper oxides, sulfur oxides, hydrogen chloride gas, irritating toxic fumes and gases.

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

### **Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Store in a tightly closed, non-metal container in a cool, dry, and well-ventilated area. Keep away from incompatible materials.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### **Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**Exposure Limits:**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Hydrochloric Acid CAS#7647-01-0	2 ppm Ceiling	5 ppm Ceiling 7 mg/m <sup>3</sup> Ceiling 50 ppm IDLH	5 ppm Ceiling 7 mg/m <sup>3</sup> Ceiling
Alcian Blue CAS#33864-99-2	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA 100 mg/m <sup>3</sup> IDLH	Not listed

**OSHA Vacated PELs:** Hydrochloric Acid: 5 ppm Ceiling; 7 mg/m<sup>3</sup> Ceiling

Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Blue

**Odor:** Pungent

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** 0.9-1.1

**Relative Density:** Not available

**Melting point/freezing point:** Not available

**Solubility:** Soluble in water

**Boiling Point:** Not available

**Flash Point:** Not available

**Evaporation Rate:** Not available

**Flammability (solid, gas):** Not available

**Partition coefficient: n-octanol/water:** Not available

**Auto-ignition Temperature:** Not available

**Decomposition Temperature:** Not available

**Viscosity:** Not available

**Specific Gravity/Density:** Not available

Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat, and freezing.

**Incompatibilities with Other Materials:** Strong oxidizing agents, metals, bases, sodium hypochlorite, amines, fluorine, cyanides, alkali metals, permanganates, fluorine, metal acetylides.

**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, copper oxides, sulfur oxides, hydrogen chloride gas, irritating toxic fumes and gases.

Section 11 - Toxicological Information
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**CAS#7647-01-0 Hydrochloric Acid: RTECS#: MW4025000**

LD50 Oral: 238-277 mg/kg (rat)  
LD50 Dermal: >5010 mg/kg (rabbit)  
LC50 Inhalation: 1.68 mg/L (rat) 1h

**Carcinogenicity:** Hydrochloric Acid CAS#7647-01-0 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**CAS#33864-99-2 Alcian Blue:**

LD50 Oral: Not available  
LD50 Dermal: Not available  
LC50 Inhalation: Not available

**Carcinogenicity:** Alcian Blue CAS#33864-99-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

**Epidemiology:** Not available

**Teratogenicity:** Not available

**Reproductive Effects:** Not available

**Developmental Effects:** Not available

**Neurotoxicity:** Not available

**Mutagenicity:** Not available

**Specific Target Organ Toxicity, Single Exposure:** Not available

**Specific Target Organ Toxicity, Repeated Exposure:** Not available

**Note: Alcian blue is a copper compound. Target organ effects due to chronic copper poisoning include damages to the liver, brain, kidney, eye, blood, and blood vessels.**

**Note: This is a corrosive material. Causes burns by all exposure routes.**

**The toxicological properties of this material have not been thoroughly investigated.**

Section 12 - Ecological Information
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**Ecotoxicity:** Do not release to the environment. Do not release to drains. May cause long-term adverse effects in the environment.

**CAS#7647-01-0 Hydrochloric Acid:**

LC50, freshwater fish: 282 mg/L 96h (gambusia affinis)

EC50, water flea: 56 mg/L 72h (daphnia magna)

**Persistence and degradability:** Not available

**Bio-accumulative potential:** Not available

**Mobility:** Will likely be mobile in the environment due to its water solubility.

### Section 13 - Disposal Considerations

**DISPOSAL:** Dispose of in accordance with all federal, state, and local regulations.

### Section 14 – Transport Information

**DOT**

Shipping Name: Hydrochloric Acid Solution

UN1789

PG II

Hazard Class 8

### Section 15 - Regulatory Information

#### Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

### Section 16 - Additional Information

**SDS Creation Date:** 10/15/12

**Revision #1.** 2-21-14 YM

**Revision #2.** 11-6-18

**Revision #3.** 7-21-22

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