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 packaging.
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): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove person to fresh air and keep 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/doctor.
P363-Wash contaminated clothing before reuse.
P390-Absorb spillage to prevent material damage.
P405-Store locked up.
P406-Store in a corrosion 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. Get 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. Get immediate medical attention.

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

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, hydrogen gas, chlorine fumes, irritating and toxic fumes and gases.

Flash Point: Not available
Autoignition Temperature: Not available
Explosion Limits, Lower: Not available
Upper: Not available
NFPA Rating: (estimated) Health: 3; 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. Keep in a tightly closed and non-metal container. Store 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 - TLV	NIOSH - IDLH	OSHA – Final PELs
Hydrochloric Acid CAS#7647-01-0	2 ppm Ceiling	5 ppm Ceiling 7 mg/m3 Ceiling 50 ppm IDLH	5 ppm Ceiling 7 mg/m3 Ceiling
Alcian Blue 8GX CAS#33864-99-2	1 mg/m3 TWA	1 mg/m3 TWA 100 mg/m3 IDLH	Not listed

OSHA Vacated PELs: Hydrochloric Acid: 5 ppm Ceiling; 7 mg/m3 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
Autoignition 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, hydrogen gas, chlorine fumes, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

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 1h (rat)

Carcinogenicity: Hydrochloric Acid CAS#7647-01-0 is not listed by NTP, ACGIH, OSHA, or California Prop. 65. Hydrochloric Acid is listed by IARC (Group 3, Not Classifiable as to its Carcinogenicity to Humans).

CAS#33864-99-2 Alcian Blue 8GX:
LD50 Oral: Not available
LD50 Dermal: Not available
LC50 Inhalation: Not available

Carcinogenicity: Alcian Blue 8GX CAS#33864-99-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

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

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

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.

Symptoms associated with exposure: If ingested, causes severe burns of the mouth and throat, danger of perforation of the esophagus and stomach. Causes serious eye damage, pain, watering, redness, and risk of blindness. Corrosive. Skin contact may cause severe burns, redness, pain, deep ulcers, and skin discoloration.

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

Section 12 - Ecological Information

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)(mosquito fish)
LC50, freshwater fish: 862 mg/L (leuciscus idus)(golden orfe)
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
Revision #4: 2-27-25

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