
MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: ALCIAN BLUE pH 2.5

Catalog number: 867, 880B

General use: Stain to demonstrate acid polysaccharides.

Product description: Alcian blue dye in dilute aqueous acetic acid.

Manufacturer

Anatech Ltd.
1020 Harts Lake Road
Battle Creek, MI 49037
USA

Emergency contact information

Health:	Anatech Ltd.	800-262-8324	8 am - 5 pm ET, M-F
Transportation:	CHEMTREC	800-424-9300	24 hours

2. COMPOSITION AND INFORMATION ON INGREDIENTS

(Note: Percentage composition is withheld as a trade secret.)

<u>Component</u>	<u>CAS #</u>	<u>Exposure limits</u>
Alcian blue dye (C.I. 74240)	75881-23-1	Not established.
Acetic acid	64-19-7	10 ppm (OSHA, NIOSH, ACGIH 8 hr TWA) 15 ppm (NIOSH, ACGIH 15 minute STEL)

3. HAZARDS IDENTIFICATION

Emergency overview

Blue liquid.

Irritant to eyes. Not likely to pose a hazard under normal conditions of use.

Potential health effects

(Human health effects only.)

Primary route(s) of exposure: Eyes and skin.

Inhalation: Inhalation of vapors during normal conditions of use are not likely to present a health hazard.

Eye: Contact of liquid with eyes may cause irritation.

Skin: Brief contact with skin is nonirritating.

Ingestion: Effects are unknown but anticipated to be slight.

3. HAZARDS IDENTIFICATION (continued)

Chronic effects: Alcian blue is a copper compound. Target organ effects due to chronic copper poisoning have been reported in the liver, brain, kidney, eyes, blood and blood vessels.

Signs and symptoms: Affected skin will be stained blue. Eyes may water and coughing may occur. Effects on the gastrointestinal tract may include discomfort and nausea.

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air if coughing or difficulty in breathing is experienced. Consult a physician if symptoms persist or worsen. Administer oxygen or artificial respiration as needed.

Eye: Flush eyes for at least 15 minutes in an eyewash station. If symptoms persist after washing, consult a physician.

Skin: Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly; apply a good quality skin lotion. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. For severe conditions, consult a physician.

Ingestion: Call a poison control center immediately. If victim is conscious, have him/her drink several glasses of water to dilute the solution. Induce vomiting only upon the advice of a physician or poison control authority.

5. FIRE FIGHTING MEASURES

Flammable properties

Flash point: > 200°F (> 93.3°C) closed cup.

Flammable limit: Not determined.

Autoignition temperature: Not determined.

Flammability classification: Class IIIB Combustible liquid (OSHA).

Flame propagation: None.

Hazardous products of combustion: Carbon oxides, nitrogen oxide, sulfur oxide and hydrogen chloride gas.

Extinguishing media: ABC rated portable fire extinguishers should be used. Professional fire fighters may use water spray, dry chemical or carbon dioxide.

Fire fighting instructions: No special precautions are necessary.

6. ACCIDENTAL RELEASE MEASURES

Wear protective gloves, impermeable aprons and splash-proof goggles. Use a damp sponge or mop to remove spilled liquid. Wash contaminated area with water. Discard absorbents and other contaminated solids in a trash receptacle. Liquid waste may be discarded down the drain with approval by wastewater authorities, or may be removed by a licensed waste hauler.

Comply with all applicable governmental regulations on spill reporting and on the handling and disposal of hazardous waste.

7. HANDLING AND STORAGE

Handling: Wear a plastic or rubber apron, protective gloves and splash-proof goggles. Avoid contact with skin and eyes. Do not continue to wear contaminated clothing after a spill.

Storage: Store at room temperature.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls: Good general room ventilation is essential.

Personal protective equipment

Respiratory protection: None needed.

Skin protection: Anatech Ltd. recommends nitrile gloves. Do not use latex surgical gloves for protection. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

Eye protection: Use splash-proof goggles. Do not use safety glasses. An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue liquid.

Odor: Mild acetic acid odor.

Physical state: Liquid.

pH: 2.3 - 2.7.

Vapor pressure: Not determined.

Vapor density: Not determined.

Boiling point: Not determined.

Freezing point: Not determined.

Solubility in water: Complete.

Specific gravity: Not determined.

10. STABILITY AND REACTIVITY

Chemical stability: Stable.

Conditions to avoid: None.

Incompatibility with other materials: Strong oxidants.

Hazardous decomposition products: None.

Hazardous polymerization: None.

11. TOXICOLOGICAL INFORMATION

Acute effects: None known.

Chronic effects/carcinogenicity: Alcian blue is a copper compound. Target organ effects due to chronic copper poisoning have been reported in the liver, brain, kidney, eyes, blood and blood vessels. There is no evidence of carcinogenicity.

12. ECOLOGICAL INFORMATION

No environmental information is known.

13. DISPOSAL CONSIDERATIONS

Alcian Blue pH 2.5 has no hazardous characteristics. Drain disposal is recommended with the permission of local wastewater treatment authorities.

Canadian disposal regulations generally parallel those in the United States.

Follow federal, state (provincial) and local regulations. Proper waste disposal is the generator's responsibility.

14. TRANSPORTATION INFORMATION

DOT (ground and air) and IATA: Not regulated.

15. REGULATORY INFORMATION

OSHA (USA): Under the Hazard Communication Standard and the Laboratory Standard, this product is a hazardous material: it is an irritant.

The OSHA Standards cited above mandate that exposed workers receive proper training in the properties of this product, work practices involved with its handling and disposal, and interpretation of its MSDS.

FDA (USA): Alcian Blue pH 2.5 is for in vitro diagnostic use as a stain in histology.

EPA (USA): Alcian Blue pH 2.5 is a reportable substance under SARA Title III.

16. OTHER INFORMATION

Label warnings: Avoid contact with eyes to prevent irritation. Avoid contact with skin to prevent staining.

NFPA (National Fire Protection Association) Rating:

General note: This rating is applicable only to safeguard the lives of individuals who may be concerned with fires occurring in an industrial plant or storage location. The ratings provide information to emergency personnel on whether to evacuate the area or how to perform control procedures. It is not descriptive of hazards under normal conditions of occupational use, and is even less applicable to anticipated laboratory-scale use.

Health 0: Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

Flammability 0: Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

Instability 0: Materials that are normally stable even under fire conditions.