Material Safety Data Sheet

SECTION 1 – IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product Name: Bronolab W-II
Product Number: 822
Manufacturer/Supplier: Advanced Instruments, Inc.
Two Technology Way
Norwood, MA 02062
1-781-320-9000
Origin: USA
Date of Issue: 2013-04-09

Chemical Identification(s): Bronopol
Intended Use: Bronolab W-II is used for the preservation of milk samples to be analyzed on infrared equipment.
Emergency Contact: 24-Hour Product Safety Control Hotline
(303) 739-1110
(877) 740-5015 (toll free)

SECTION 2 – HAZARDS IDENTIFICATION

Health

Routes of Entry:
Ingestion, or eye/skin contact, inhalation.
Health Hazards:
Harmful if swallowed, severely irritating to eyes, causes severe skin irritation. Aerosol mists irritating if inhaled.
Carcinogenicity:
Not listed as a carcinogen.
Symptoms of Exposure:
None indicated.
Medical Conditions Aggravated by Exposure:
None indicated.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Component:
Bronopol , active ingredient
CAS #:
52-51-7
Percent:
18 %

Component:
Inert Ingredients
Percent:
82 %

SECTION 4 – FIRST AID MEASURES

Emergency and First Aid Procedures:
SEEK MEDICAL ASSISTANCE IN ALL CASES OF OVEREXPOSURE.
Eyes:
Immediately flush eyes with copious amounts of water for at least 15 minutes. Obtain medical attention.
Skin:
Immediately wash skin with soap and water. Remove contaminated clothing. Obtain medical attention if symptoms occur. Wash clothing before reuse.
Ingestion:
Wash out mouth thoroughly with water and give sips of water to drink if able to swallow. Only induce vomiting if told to do so by poison control center or doctor. Obtain medical attention.
Inhalation:
Remove to fresh air.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point (ºF):
No flash point observed at 212ºF, the boiling point of water, the main constituent of material (Tag Open Cup ASTM No D1310).
Extinguishing Media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous Combustion Products:
Oxides of carbon and nitrogen, formaldehyde, bromine.
Fire Fighting Procedures:
Wear self-contained breathing apparatus for firefighting if in confined space. Cool fire-exposed containers with water spray to prevent rupture.
Fire and Explosion Hazards:
If product is heated above 140ºC, the solid residue from solutions decomposes exothermically, liberating toxic hydrogen bromide fumes, oxides of nitrogen, and wells up to give a sticky tarry mass which burns readily.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill Response:
Prevent entry into watercourses. Contain spilled material. Dilute with water. Absorb with inert materials, sand, earth, and collect using impervious rubber gloves and chemical safety goggles. Place in closed plastic container for proper disposal as described under Section 13, Disposal Considerations.

SECTION 7 – HANDLING AND STORAGE

General Procedures:
Keep container tightly closed. Avoid contact with eyes, skin and clothing. Use with adequate ventilation and store at ambient temperatures. Store away from sunlight, oxidizing agents and/or bases, heat and sources of ignition, food, drink, and animal feed stuffs. Do not refrigerate.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection:

Eye/Face Protection: Safety glasses with side shields or chemical goggles must be worn at all times. Eye wash fountain should be located in immediate work area.

Skin and Hand Protection: Protective clothing and impervious rubber gloves must be worn to prevent skin contact. Gloves chemically resistant to this material include neoprene, butyl rubber, nitrile or equivalent.

Respiratory Protection: Not generally required except in high vapor concentration. If mists or vapors are generated, use NIOSH approved respirator.

Engineering Controls:
General ventilation sufficient for routine procedures. Provide local ventilation at source of mists.
Work/Hygienic Practices:
Wash hands thoroughly after handling. Do not take internally. Eyewash and safety equipment should be readily available.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Dark-red liquid

Boiling Point:

102°C

Specific Gravity (H_2O = 1):

Approximately 1.1 g/mL at 20°C

Flash Point (ºC):

No flash point observed at 100°C (water is the main constituent)

pH:

$\geq$ 3.2

Evaporation Rate (BuAc = 1):

Similar to that of water.

Vapor Pressure (mm Hg):

Similar to that of water.

Vapor Density (AIR = 1):

Similar to that of water.

Volatility:

~ 80 %

Solubility/Miscibility:

Miscible in all proportions of water, methanol, ethanol. Immiscible with chloroform, petroleum aromatic and paraffinic solvents.

SECTION 10 – STABILITY AND REACTIVITY

Stability:
Stable under normal temperatures and pressures. See Section 7, Handling and Storage.
Hazardous Polymerization:
Will not occur.
Conditions to Avoid:
Heat and sources of ignition, temperatures > 100ºC, direct sunlight.
Materials to Avoid:
Oxidizing agents and/or bases. Avoid contact with metals such as aluminum, brass, copper, tin, galvanized metals, iron, and mild steel; corrosive on prolonged contact.
Hazardous Decomposition:
Oxides of carbon and nitrogen, formaldehyde, bromine.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingestion: LD50 Oral Rat - 1572 mg/kg
Dermal: LD50 Dermal Rabbit - >2 gm/kg; may cause dermal sensitization
Eyes: Corrosive

Symptoms of Exposure:
Irritating on contact with skin, eyes, mucous membranes, or upper respiratory tract. Harmful if swallowed.
Routes of Entry:
Ingestion, inhalation, eye and skin contact.
Carcinogenicity:
None indicated.
Toxicological Findings:
No evidence of carcinogenicity in oral and dermal rat studies. Not mutagenic, teratogenic or toxic to reproductive organs.

SECTION 12 – ECOLOGICAL INFORMATION

Ecological effects:
Active ingredient is toxic to aquatic species on an acute basis.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state/provincial, country and local laws and regulations. Contact a permitted waste disposal site to ensure compliance.

SECTION 14 – TRANSPORTATION INFORMATION

DOT ID Number:
UN3265
DOT Proper Shipping Name:
Corrosive Liquid, Acidic, Organic, NOS
Class:
8
PG:
PG III

SECTION 15 – REGULATORY INFORMATION

This material is a "Hazardous Chemical" as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16 – OTHER INFORMATION

NFPA Hazard Ratings:

Health:	3
Flammability:	1
Reactivity:	0
Special Hazards:	Corrosive

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