



Bronolab W-II

Safety Data Sheet

according to US HazCom 2012
Issue date: 27 October 2023

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
Trade name : Bronolab W-II
Product code : 822

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Laboratory use

1.3. Supplier

Advanced Instruments LLC
2 Technology Way
Norwood, Massachusetts 02062
1 (781) 320-9000
info@aicompanies.com

1.4. Emergency telephone number

Emergency number : 1 (877) 740-5015

SECTION 2: Hazard(s) identification


2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 1	Causes serious eye damage

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) : 

Signal word (GHS US) : Danger

Hazard statements (GHS US) : Causes skin irritation
Causes serious eye damage

Precautionary statements (GHS US) : Wash hands thoroughly after handling.
Wear eye protection, protective gloves, protective clothing.
If on skin: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center or doctor.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Very toxic to aquatic life.

2.4. Unknown acute toxicity (GHS US)

No additional information available

Bronolab W-II

Safety Data Sheet

according to US HazCom 2012

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
bronopol (INN), 2-bromo-2-nitropropane-1,3-diol	CAS-No.: 52-51-7	10 - 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Rinse immediately with plenty of water for 15 minutes. Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 20-30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: The product is not flammable.
Explosion hazard	: No hazard identified.
Hazardous decomposition products in case of fire	: Thermal decomposition can lead to the release of irritating gases and vapors. Thermal decomposition may produce : Hydrogen bromide. Nitrogen oxides. Carbon oxides (CO, CO2).

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

Bronolab W-II

Safety Data Sheet

according to US HazCom 2012

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ventilate area. Avoid inhalation of vapors.

6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area. Stop leak if safe to do so. Prevent entry to sewers and public waters.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Use neutralizing agent. Take up liquid spill into absorbent material. Gather the product and place it in a spare container that has been suitably labeled.

Other information : Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid inhalation of vapors.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.

Incompatible materials : Strong acids and oxidants. Reducing agents. Bases. Aluminum. Iron. Acid chlorides. Acid anhydrides.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Bronolab W-II

No additional information available

bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)

No additional information available

Bronolab W-II

Safety Data Sheet

according to US HazCom 2012

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Red
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Molecular mass	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Bronolab W-II

Safety Data Sheet

according to US HazCom 2012

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong acids and oxidants. Reducing agents. Bases. Aluminum. Iron. Acid chlorides. Acid anhydrides.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Hydrogen bromide. Nitrogen oxides. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)

LD50 oral	180 mg/kg body weight
LD50 dermal	1600 mg/kg body weight
LC50 Inhalation - Rat (Dust/Mist)	> 5000 mg/l

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) Not classifiable as a human carcinogen
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)

bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: Inhalation of mists or vapors at elevated temperatures may cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life.
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Bronolab W-II

Safety Data Sheet

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bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)	
LC50 - Fish [1]	26.4 mg/l
EC50 - Crustacea [1]	1.4 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	1.4 mg/l waterflea
EC50 - Other aquatic organisms [2]	0.4 mg/l
EC50 72h - Algae [1]	0.25 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	0.37 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	0.02 mg/l Source: NCIS
LOEC (chronic)	0.88 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.27 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	21.5 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '49 d'

12.2. Persistence and degradability

Bronolab W-II	
Persistence and degradability	Not established.
bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)	
Not rapidly degradable	

12.3. Bioaccumulative potential

Bronolab W-II	
Bioaccumulative potential	Not established.
bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)	
Partition coefficient n-octanol/water (Log Pow)	0.18

12.4. Mobility in soil

bronopol (INN), 2-bromo-2-nitropropane-1,3-diol (52-51-7)	
Mobility in soil	388.3 – 1416 Source: ECHA

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.



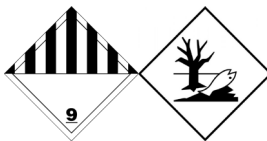
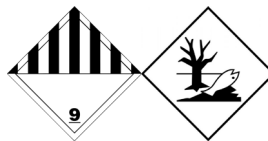
Bronolab W-II

Safety Data Sheet

according to US HazCom 2012

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
3082	UN3082	3082	3082
14.2. Proper Shipping Name			
Environmentally hazardous substances, liquid, n.o.s. (bronopol (INN), 2-bromo-2-nitropropane-1,3-diol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bronopol (INN), 2-bromo-2-nitropropane-1,3-diol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bronopol (INN); 2-bromo-2-nitropropane-1,3-diol)	Environmentally hazardous substance, liquid, n.o.s. (bronopol (INN); 2-bromo-2-nitropropane-1,3-diol)
14.3. Transport hazard class(es)			
9	9	9	9
			
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
<p>Consult the associated transport regulations for available and applicable exceptions or exemptions.</p> <p>The suitable shipping classification must be evaluated at the time of shipment due to the possibility for variations in regard to the transportation of this material considering the requirements, modes of transport, packaging, packaging configuration, quantity etc. Please consult the appropriate regulation for specific shipping information and requirements.</p> <p>This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation information can be obtained through the authorized transporting corporation. It is the responsibility of the transporting corporation to follow all applicable laws, regulations and rules relating to the transportation of this product.</p>			

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Bronolab W-II

Safety Data Sheet

according to US HazCom 2012

15.2. International regulations

FD and C Yellow No. 6 (2783-94-0)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on TECI (Thailand Existing Chemicals Inventory)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to US HazCom 2012

Revision date : 23 June 2023

Other information : None.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.