

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

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Version Number: 1.0

SECTION 1: IDENTIFICATION**1.1 Product Identifier Product Form:** Mixture

Product Name: BCIP/NBT Membrane Alkaline Phosphatase Substrate

Product Code: BCBT-100

1.2 Intended Use of the Product

For research use only

1.3 Name, Address, and telephone of the Responsible Party

Company:

Rockland Immunochemicals, Inc.

321 Jones Boulevard

Pottstown, PA 19464

(800) 656-7625

1.4 Emergency Telephone Number

CHEMTREC: 800-424-9300 CHEMTREC (USA) +1-703- 527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the Substance or Mixture**

GHS-US Classification: Skin Sens. 1 (H317)

2.2 Label Elements

GHS-US Labeling:

Hazard Pictogram:



Signal Word: Warning

Hazard Statements:

H302: Harmful if swallowed

H312: Harmful in contact with skin

H315: Causes skin irritation H317: May cause an allergic skin reaction

H319: Causes serious eye irritation

H332: Harmful if inhaled

H335: May cause respiratory irritation

Precautionary Statements:

P261 - Avoid breathing vapors, mist, or spray

P264: Wash hands and skin thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace

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

P302+P352: IF ON SKIN: Wash with soap and water.

P333+P313: If skin irritation occurs: Get medical advice/attention.

P363 - Wash contaminated clothing before reuse

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

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

2.3 Other Hazards

None known

2.4 Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable.

Name	Product Identifier	%	GHS-US Classification
2-Methyl-2-amino-1-propanol	124-68-5	≤1%	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 3, H412
Maleic Acid	110-16-7	≤0.4%	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335

4.1 Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

After Inhalation: When symptoms occur, go into open air, and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

After Skin Contact: Immediately remove any contaminated clothing.

After Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

General: Skin sensitization

After Inhalation: Prolonged exposure may cause respiratory irritation

After Skin Contact: May cause an allergic skin reaction

After Eye Contact: May cause slight irritation to eyes

After Ingestion: Ingestion may cause adverse effects

Chronic Symptoms: None known

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

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

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2 Special Hazards Arising from the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3 Advice for Firefighters

Precautionary Measures - Fire: Exercise caution when fighting any chemical fire. Under fire conditions closed containers may rupture or explode.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Remove containers from fire area if this can be done without risk. Do not breathe fumes from fires or vapors from decomposition.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other Information: Do not allow run-off from firefighting to enter drains or water courses.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Normal ventilation is adequate.

6.1.1 For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

6.1.2 For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4 Reference to Other Sections

See Heading 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards When Processed: None

Precautions for Safe Handling: For precautions see section 2.2. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep Tightly Closed/ Refrigerate

Incompatible Products: N/A

7.3 Specific End Use(s)

For research use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Contains no substances with occupational exposure limit

8.2 Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: The use of personal protective equipment may be necessary as conditions warrant. Gloves. Protective clothing. Protective goggles.



Materials for Protective Clothing: Wear appropriate protective gloves and clothing to prevent skin exposure.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Safety glasses with side shields or safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Environmental Exposure Controls: No special environmental precautions required.

Other Information: When using, do not eat, drink, or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear to pale yellow solution

Odor: No data available

Odor Threshold: No data available

pH: 9.5 ± 0.5

Evaporation Rate: No data available

Melting Point: 0° C Water

Freezing Point: No data available

Boiling Point: No data available

Flash Point: No data available

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flammability (solid, gas): Not flammable

Lower Flammable Limit: No data available

Upper Flammable Limit: No data available

Vapor Pressure: No data available

Relative Vapor Density at 20°C: No data available

Relative Density: No data available

Specific Gravity: No data available

Solubility: Dilute in water

Partition Coefficient: N-Octanol/Water: No data available

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

Viscosity: No data available

9.2 Other Information

No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions will not occur under normal conditions.

10.2 Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3 Possibility of Hazardous Reactions

No information available

10.4 Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials. Contact with metals or metal surfaces may cause purple color formation.

10.5 Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6 Hazardous Decomposition Products

Thermal decomposition generates carbon oxides (CO, CO₂), nitrogen oxides, and sulfur compounds. In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Acute toxicity: Not classified.

2-Amino-2-methyl-1-propanol (124-68-5)	
LD50 Oral Rat	2900 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

Maleic acid (110-16-7)	
LD50 Oral Rat	708 mg/kg
LD50 Dermal Rabbit	1560 mg/kg
LC50 Inhalation Rat	> 720 mg/m ³ (Exposure time: 1 h)

Chronic Toxicity Irritation: No information available.

Sensitization: May cause an allergic skin reaction.

Carcinogenicity: Not classified.

Mutagenic effects: Not classified.

Reproductive effects: Not classified.

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

Developmental effects: No information available.

Teratogenicity: No information available.

SECTION 12: ECOLOGICAL INFORMATION
12.1 Toxicity

Not classified.

2-Amino-2-methyl-1-propanol (124-68-5)	
LC50 Fish 1	190 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	193 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Maleic acid (110-16-7)	
LC50 Fish 1	5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	250 - 400 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2 Persistence and Degradability

No data available

12.3 Bioaccumulative Potential

No data available

2-Amino-2-methyl-1-propanol (124-68-5)	
BCF fish 1	< 1

Maleic acid (110-16-7)	
BCF fish 1	10
Log Pow	-0.79 - 0.32

12.4 Mobility in Soil

No data available

12.5 Other Adverse Effects

No data available

SECTION 13: DISPOSAL CONSIDERATIONS
13.1 Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: None

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored and can vary based on several variables that may or may not have been known at the time the SDS was issued.

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

14.1 In Accordance with DOT

Not regulated for transport.

14.2 In Accordance with IMDG

Not regulated for transport.

14.3 In Accordance with IATA

Not regulated for transport.

14.4 In Accordance with TDG

Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations OSHA Hazards:

2-Amino-2-methyl-1-propanol (124-68-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Maleic acid (110-16-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA 302 Components: SARA 302: No chemical in this material is subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.

SARA 311/312 Hazards: Immediate (acute) health hazard. See section 2 for more information.

15.2 US State Regulations

2-Amino-2-methyl-1-propanol (124-68-5)

U.S. - Massachusetts - Right to Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Maleic acid (110-16-7)

U.S. - Massachusetts - Right to Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision: 12/10/2025

Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral) Aquatic Chronic 3	Acute toxicity (oral) Category 4 Hazardous to the aquatic environment - Chronic Hazard Category 3

BCIP/NBT Membrane Alkaline Phosphatase Substrate SDS

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects

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.