



Material Safety Data Sheet

BlockPRO Blocking Buffer

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1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND THE COMPANY/ UNDERTAKING

Commercial Product name:	BlockPRO Blocking Buffer
Product number:	BP01-1L
Intended use:	Biochemical Reagent

Manufacturer: Visual Protein Biotechnology Corp
No. 510, ZhongZheng Rd.,
XinZhuang City, Taipei County, Taiwan 24299
Emergency telephone number: +886-2-8660-6212

2. CHEMICAL CHARACTERISATION

Component :

Solution : 2 Piece (s)
10-15% Tris CAS-No. 68112-30-1
1-5% NaCl CAS-No 8028-77-1

3. HAZARDS IDENTIFICATION

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Target organs: Contains material which may cause damage to the following organs:
upper respiratory tract, eyes, teeth.

Potential Health Effects:

Eye: Can cause severe irritation, tearing and reddening, but not likely to permanently injure eye tissue. Can cause severe irritation. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Temporary vision impairment (cloudy or blurred vision) is possible.

Skin: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause

permanent damage. May cause allergic skin reaction.

Inhalation: Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, and headache. Can be corrosive to the respiratory tract causing severe irritation and tissue damage. If liquid mists are breathed into the lungs, they may be rapidly absorbed through the lungs and injure specific target organs. No toxicity expected from inhalation.

Ingestion: Severe irritating to mouth, throat, and stomach. Can cause abdominal discomfort. Harmful if swallowed. May cause systemic poisoning. Corrosive to tissue. Can cause severe and permanent damage to mouth, throat, and stomach. Aspiration may lead to lung damage. Ingestion of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. Harmful if swallowed. May cause systemic poisoning.

Chronic: No data on cancer. Contains a substance(s) that is a possible reproductive system hazard based on high dose tests with laboratory animals.

4. FIRST AID MEASURES

Eye: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Remove contact lenses, clean before re-use. Get immediate medical attention.

Skin: Wash with soap and water. Remove contaminated clothing and launder immediately, and discard contaminated leather goods, and wash before re-use. Get medical attention immediately if irritation develops or persists.

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS. Corrosive.

Note To Physician: Treat symptomatically.

5. FIRE FIGHTING MEASURE

Flashpoint Deg C: Not available.

Upper Flammable Limit %: Not available.

Lower Flammable Limit %: Not available.

Autoignition Temperature Deg C: Not available.

Extinguishing Media: Use water spray when fighting fires. Alcohol resistant foam, carbon dioxide, dry chemical, or foam may just provide limited control. Do not direct a water stream directly into the hot burning liquid. Use water spray/fog for cooling.

Firefighting Techniques/Equipment: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

Hazardous Combustion Products: Includes carbon dioxide, carbon monoxide, and dense smoke.

6. ACCIDENTAL RELEASE MEASURES

Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to Section 8 for personal protection equipment recommendations.

Spill Cleanup:

Stop leak if without risk. Move containers from spill area . Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Storage of some materials is regulated by federal, state, and/or local laws.

Storage Pressure: Ambient

Handling Procedures: Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Keep closed or covered when not in use.

Storage Procedures: Suitable for most general chemical storage areas.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits:

Component	OSHA PEL (ppm)	AGCIH TWA (ppm)
Tris	Not established.	Not established.
NaCl	Not established.	Not established.

Engineering Controls: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment:

Eye: An eye wash station must be available where this product is used. Wear chemical goggles.

Skin: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

Respiratory: Use a properly fitted, air-purifying or air fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/physical state: Liquid solution / suspension

Order: No odor.

Specific Gravity/Density: 1.29 (water=1)

Volatiles: Not established.

Evaporation Rate: Not established.

Viscosity: Not established.

Infection: No Infection

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to Avoid: No specific data

Hazardous Decomposition Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous Polymerization: Under normal conditions of storage and use, hazardous

reactions will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity (Rat):

Inhalation/Respiratory: Tris: 29,000 MG/m³/4H

Oral/Ingestion: Tris: Oral LD50 = 376 MG/KG

Target Organs: Kidneys. Central Nervous System.

Carcinogenicity:

NTP: Not tested.

IARC: 3

OSHA: Not regulated. .

12. Ecological Information

Ecotoxicological Information: No ecological information available.

Environmental Fate (Degradation, Transformation, and Persistence):

Bioconcentration is not expected to occur.

13. DISPOSAL CONSIDERATIONS

Regulatory Information: Not applicable.

Disposal Method: Clean up and dispose of waste in accordance with all federal, state, and or local environmental.

14. TRANSPORT INFORMATION

NOT RESTRICTED ACCORDING TO IATA REGULATION.

Proper Shipping Name: Not Determined.

Subsidiary Hazards:-

15. REGULARTARY INFORMATION

EUROPEAN INFORMATION: Caution: substance not yet fully tested.

16. OTHER INFORMATION

WHMIS Rating 0-4:

FIRE:0.

HEALTH: 0.

REACTIVITY: 0

Abbreviations

N/A - Data is not applicable or not available

SARA - Superfund and Reauthorization Act

HMIS - Hazard Material Information System

WHMIS - Workplace Hazard Materials Information System

NTP - National Toxicology Program

OSHA - Occupational Health and Safety Administration

IARC - International Agency for Research on Cancer

PROP 65 - California Safe Drinking Water and Toxic Enforcement Act of 1986

EINECS - European Inventory of Existing Commercial Chemical Substances