



Material Safety Data Sheet

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

Commercial Product name : BlockPRO™ Protein-Free Blocking Buffer
Product number : BF01-1L/BF01-100/BF01-200
Intended use : Biochemical reagent

Manufacturer : Visual Protein Biotechnology Corp
Address : No. 510, ZhongZheng Rd., XinZhuang District,
New Taipei City, Taiwan 24299

Emergency telephone number : +886-2-8660-6212

2. CHEMICAL CHARACTERISATION

Commercial Product name : Blocking Buffer
Substance/mixture : Mixture
Description : Not available

Listing of dangerous and non-hazardous components:

CAS number	Ingredient Name	Concentration
68112-30-1	Tris	10-15%
8028-77-1	NaCl	1-5%

3. HAZARDS IDENTIFICATION**Classification of the substance or mixture**

Not classified.

Label elements

Not applicable.

Other hazards

No.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact : 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.

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.

Skin Contact : 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.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water or milk to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.

Most important symptoms/effects, acute and delayed potential acute health effects

Eye Contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin Contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye Contact : No specific data.

Inhalation : No specific data.
Skin Contact : No specific data.
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Note To Physician : Treat symptomatically. If large quantities have been ingested or inhaled, contact poison treatment specialist immediately.

Specific treatments : No specific treatment.

5. FIRE FIGHTING MEASURE

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Special hazards arising from the substance or mixture

Specific hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Includes carbon dioxide, carbon monoxide, and dense smoke.

Advice for firefighters

Special precautions for firefighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Exposure to the spilled material may be irritating or harmful. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Precautions for safe handling

No data available.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a dry, cool and well-ventilated place. Keep container tightly closed and sealed until ready for use.

*Recommended storage temperature: 2 - 8 °C

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure controls

TWA : Not applicable.
STEL : Not applicable.
CEILING : Not applicable.
BEIs : Not applicable.

Control parameters

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Hand protection : Wear chemically resistant gloves, 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.

Skin and body protection : Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

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

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure

they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Physical state :	Liquid.
Color :	Colorless.
Odor :	No Odor.
Odor threshold :	Not available.
pH :	7.8 to 8.1
Melting point :	Not available.
Boiling point :	Not available.
Flash point :	Not available.
Burning time :	Not available.
Burning rate :	Not available.
Evaporation rate :	Not available.
Flammability (solid, gas) :	Not available.
Lower and upper explosive (flammable) limits :	Not available.
Vapor pressure :	Not available.
Vapor density :	Not available.
Relative density :	Not available.
Solubility :	Not available.
Solubility in water :	Not available.
Partition coefficient: n-octanol/ water (log Kow) :	Not available.
Auto-ignition temperature :	Not available.
Decomposition temperature :	Not available.
Viscosity :	Not available.

10. STABILITY AND REACTIVITY

Reactivity

No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

Stable.

Possibility of hazardous reaction

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

No specific data.

Incompatible materials

No specific data.

Hazardous decomposition products

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

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity :	Not available.
Acute toxicity estimates :	Not available.
Irritation/Corrosion :	Not available.
Sensitization :	Not available.
Mutagenicity :	Not available.
Carcinogenicity :	Not available.
Reproductive toxicity :	Not available.
Teratogenicity :	Not available.
Aspiration hazard :	Not available.

Potential acute health effects

Eye contact :	No known significant effects or critical hazards.
Inhalation :	No known significant effects or critical hazards.
Skin contact :	No known significant effects or critical hazards.
Ingestion :	No known significant effects or critical hazards.

Potential chronic health effects

Eye contact :	No known significant effects or critical hazards.
Inhalation :	No known significant effects or critical hazards.
Skin contact :	No known significant effects or critical hazards.
Ingestion :	No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION**Toxicity**

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Not available.

Results of PBT and vPvB assessment

PBT : Not available.

vPvB : Not available.

Other adverse effects

No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

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

14. TRANSPORT INFORMATION**UN number (ADR, AND, IMDG, IATA)**

Not available.

UN proper shipping name (ADR, AND, IMDG, IATA)

Not available.

Transport hazard class(es) (ADR, IMDG, IATA)

Not available.

Packing group

No.

Environmental hazards

Not available.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available.

Chemical Safety Assessment

No data available.

16. OTHER INFORMATION

Hazardous Material Information System (U.S.A.)

Health	0
Flammability	0
Reactivity	0

National Fire Protection Association (U.S.A.)

Health	0
Flammability	0
Instability/Reactivity	0

Abbreviations

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

ADN - A set of European regulations for the carriage of dangerous goods by inland waterway

IMDG - International Maritime Dangerous Goods

IATA - International Air Transport Association-Dangerous Goods Regulations

OSHA - Occupational Health and Safety Administration