

Material Safety Datasheet (MSDS)

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Version 2.2
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Applied Biological Materials Inc.
1-3671 Viking Way,
Richmond, BC, CANADA
V6V 2J5

Section 1 – Product and Company Information

Product Name	5X Protein Loading Buffer
Catalog # From Manufacturer	G031
Original Manufacturer	Applied Biological Materials Inc.

Company	Applied Biological Materials Inc.
Address	#1-3671 Viking Way Richmond BC V6V 2J5 CA
Technical Phone	604-247-2416
Fax	604-247-2414
Emergency Phone	866-757-2414

Section 2 – Composition/Information on Ingredient

Substance Name	Sodium dodecyl sulfate (SDS)
Formula	C ₁₂ H ₂₅ NaO ₄ S
CAS Number	151-21-3
EEC-No	205-788-1
% by Weight	~10%
Substance Name	DL-Dithiothreitol (DTT)
Formula	C ₄ H ₁₀ O ₂ S ₂
CAS Number	3483-12-3
EEC-No	222-468-7

% by Weight	~3–5%
Other Components	Other components (e.g., Tris-HCl, glycerol, bromophenol blue, water) are not classified as hazardous or are present below the regulatory threshold concentrations specified in OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 3 – Hazards Identification

WHMIS Classification	<ul style="list-style-type: none"> • Health Hazard: 2 • Flammability: 0 • Reactivity: 0
NFPA Rating	<ul style="list-style-type: none"> • Health: 2 • Flammability: 0 • Reactivity: 0

Section 4 – First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact	Wash off with soap and plenty of water. Consult a physician.
Inhalation	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media	Use media appropriate to the primary cause of fire. Dry chemical, CO ₂ , water spray or regular foam.
Specific Hazards	Carbon oxides, nitrogen oxides.

Section 6 – Accidental Release Measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation.
Methods for Cleaning Up	Contain and clean up spill immediately, prevent from entering floor drains. Contain liquids using absorbents. Shovel all spill materials into disposal drum. Scrub spill area with detergent, flush with copious amounts of water.

Environmental Precautions	Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.
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Section 7 – Handling and Storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.

Section 8 – Exposure Controls/ PPE

Engineering Controls	<ul style="list-style-type: none"> A system of local and/or general exhaust is recommended to keep employee exposures low. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.
Personal Protective Equipment	<ul style="list-style-type: none"> Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area. Skin and Body Protection: Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection: If exposure limits are exceeded or you experience irritation, wear NIOSH/MSHA approved gloves. Positive-pressure supplied air respirators may be needed for high airborne contaminant.
General Hygiene Measures	<ul style="list-style-type: none"> Handle in accordance with good industrial hygiene and safety practice.

Section 9 – Physical and Chemical Properties

Appearance	Blue, viscous aqueous solution
Odour	Odourless to mild
Melting Point (°C)	< 0–5 °C
Boiling Temperature (°C)	>100 °C
Density	~1.1–1.2 g/mL
Vapour Pressure	Negligible at room temperature
Solubility in Water	Fully miscible
Flash Point	Not applicable

Explosion Limits	Not applicable
Ignition Temperature	Not applicable

Section 10 – Stability and Reactivity

Stability	<ul style="list-style-type: none"> Stability: Stable under normal conditions.
Hazardous Decomposition Products	<ul style="list-style-type: none"> Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.
Incompatible Materials	<ul style="list-style-type: none"> Strong acids and strong oxidizing agents.
Hazardous Polymerization	<ul style="list-style-type: none"> Does not occur.

Section 11 – Toxicological Information

Route of Exposure	<ul style="list-style-type: none"> Skin Contact: May cause skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: May cause eye irritation. Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. Ingestion: May be harmful if swallowed.
Signs and Symptoms of Exposure	<ul style="list-style-type: none"> To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 – Ecological Information

N/A

Section 13 – Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 – Transportation Information

DOT	<ul style="list-style-type: none"> Proper Shipping Name: None This substance is considered to be non-hazardous for transport.
IATA	<ul style="list-style-type: none"> Non-hazardous for air transport.

Section 15 – Regulatory Information

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
- DSL: No
- NDSL: No

Section 16 – Other Information

The information contained in this Material Safety Datasheet is believed to be accurate but it is the responsibility of the user or supplier to determine the applicability of these data to the formulation of necessary safety precautions.

Applied Biological Materials Inc. shall not be held responsible for any damage resulting from the use of the above product or the information contained in this Material Safety Datasheet.