Material Safety Datasheet (MSDS)

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Version 1
www.abmgood.com

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

Section 1 – Product and Company Information

Product Name	ViralEntry™ Transduction Enhancer (100X)
Catalog # From Manufacturer	G515
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	Trade Secret for most components, contain Dimethyl Sulphoxide Flammable liquids (Category 4), H227
Other Components	Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 3 – Hazards Identification

WHMIS Classification	• Health Hazard: 1 • Flammability: 4 • Reactivity: 0
NFPA Rating	• Health: 1 • Flammability: Class IIIA • Reactivity: 0

Section 4 – First Aid Measures

Eye Contact	Rinse out with plenty of water. Remove contact lenses.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Inhalation	Not expected to present a significant inhalation hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
Ingestion	Make victim drink water (two glasses at most). Consult a physician if necessary.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media	Use Water Foam Carbon dioxide (CO2) Dry powder.
Specific Hazards	Carbon oxides Sulfur oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
Protective Equipment for Firefighters	In the event of fire, wear self-contained breathing apparatus.

Section 6 – Accidental Release Measures

Personal Precautions	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Methods for Cleaning Up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Environmental Precautions	Do not let product enter drains.

Section 7 – Handling and Storage

Handling	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Change contaminated

	clothing. Wash hands after working with substance.
Storage	Tightly closed. Store under inert gas. Hygroscopic. Storage class (TRGS 510): 10: Combustible liquids.

Section 8 – Exposure Controls/ PPE

Engineering Controls	• Change contaminated clothing. Wash hands after working with substance.
Personal Protective Equipment	• **Eye Protection**: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses • **Skin and Body Protection:** This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Chloroprene Minimum layer thickness: 0.65 mm Break through time: 480 min Material tested:KCL 720 Camapren® Splash contact Material: Latex gloves Minimum layer thickness: 0.6 mm Break through time: 240 min Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M) • **Respiratory Protection**: required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
General Hygiene Measures	• Handle in accordance with good industrial hygiene and safety practice. Do not let product enter drains.

Section 9 – Physical and Chemical Properties

Appearance	Form: clear, liquid Color: orange
Odour	odorless

Melting Point (°C)	Melting point/range: 16 - 19 °C
Boiling Temperature (°C)	189 °C
Density	1.1 g/mL
Vapour Pressure	0.55 hPa at 20 °C
Solubility in Water	soluble
Flash Point	87 °C
Explosion Limits	No data available.
Ignition Temperature	No data available.

Section 10 – Stability and Reactivity

Stability	• The product is chemically stable under standard ambient conditions (room temperature) .
Hazardous Decomposition Products	• In the event of fire: see section 5
Incompatible Materials	• No data available.

Section 11 – Toxicological Information

Route of Exposure	• **Acute toxicity** LD50 Oral - Rat - male and female - 28,300 mg/kg (OECD Test Guideline 401) LC0 Inhalation - Rat - male and female - 4 h - > 5.33 mg/l - dust/mist (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - 40,000 mg/kg Remarks: (ECHA) • **Skin corrosion/irritation** Skin - Rabbit Result: slight irritation - 4 h (OECD Test Guideline 404) • **Serious eye damage/eye irritation** Eyes - Rabbit Result: slight irritation - 24 h (OECD Test Guideline 405)Ingestion: Acute toxicity estimate Oral - > 5,000 mg/kg (Calculation method).

Signs and Symptoms of Exposure	• **Respiratory or skin sensitization** Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406) Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429)

Section 12 – Ecological Information

Toxicity	• Toxicity to fish static test LC50 - Danio rerio (zebra fish) - > 25,000 mg/l - 96 h (OECD Test Guideline 203) • Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 24,600 mg/l - 48 h (OECD Test Guideline 202) • Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 17,000 mg/l - 72 h • (OECD Test Guideline 201) • Toxicity to bacteria EC50 - activated sludge - 10 - 100 mg/l - 30 min (ISO 8192)
Persistence and Degradability	• Biodegradability aerobic - Exposure time 28 d Result: 31 % - Not readily biodegradable. (OECD Test Guideline 301D)
Bioaccumulative Potential	• No data available.
Mobility in Soil	• No data available.

Section 13 – Disposal Considerations

Product	• Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Section 14 – Transportation Information

DOT	• Not regulated.
IATA	• Not regulated.

Section 15 – Regulatory Information

- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.
- DSL: No
- NDSL: No

Section 16 – Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

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.