SECTION 1- SUBSTANCE IDENTITY AND COMPANY INFORMATION

Identification of the substance/preparation

Product NameAdenosine A2b Receptor (ADORA2B) ACTOne[™] Stable Cell LineProduct CatalogCL-01-ADORA2B

Company/Undertaking Identification

Company

Address

Telephone Number

24-hour Emergency Response

eEnzyme LLC

401 Professional Drive, Suite 160 Gaithersburg, MD 20879, USA +1-240-683-5851

800-919-0755 240-683-5853

SECTION 2- HAZARDS IDENTIFICATION

HMIS Rating	Health: 0	Flammability:0	Reactivity:0
NFPA Rating	Health: 0	Flammability:0	Reactivity:0

This substance is not hazardous as defined by OSHA 29CFR 1910.1200 however this product should be handled according to good lab practices, with proper personal protective equipment, proper engineering controls and within the parameters of the purchaser's safety program.

Health Hazards

For Biosafety Level 1 Cell Cultures

Handle as a potentially biohazardous material under at least Biosafety Level 1 containment. This cell line is not known to cause disease in healthy adult humans. These cells have **NOT** been screened for Hepatitis B, human immunodeficiency viruses or other adventitious agents, unless otherwise reported on the Certificate of Analysis. Regardless of results reported on the Certificate of Analysis Universal Precautions according to 29 CFR 1910.1030 should be followed at all times when manipulating these cell lines.

See next page for Biosafety Level 2 cell cultures.

For Biosafety Level 2 Cell Cultures

Handle as a potentially biohazardous material under at least Biosafety Level 2 containment. These cell lines are associated with human disease, hazards include: percutaneous injury, ingestion, mucous membrane exposure (U.S. Government Publication **Biosafety in Microbiological and Biomedical**

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Laboratories). These cells have NOT been screened for Hepatitis B, human immunodeficiency viruses or other adventitious agents, unless otherwise reported on the Certificate of Analysis. Regardless of results reported on the Certificate of Analysis Universal Precautions according to 29 CFR 1910.1030 should be followed at all times when manipulating these cell lines.

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

Either frozen or growing cells shipped in liquid cell culture medium (a mixture of components that may include, but is not limited to: inorganic salts, vitamins, amino acids, carbohydrates and other nutrients dissolved in water). Frozen Cultures may also contain a 5%-10% solution of Dimethyl sulfoxide as a cryoprotectant.

SECTION 4- FIRST AID MEASURES

Skin contact	Wash off immediately with plenty of water. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. If symptoms persist, call a Physician. Do not induce vomiting without medical advice.
Inhalation	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
Notes to physician	Treat symptomatically.

SECTION 5- FIRE FIGHTING MEASURES

Suitable extinguishing media Target Organ Effects

Water spray. Carbon dioxide (CO2). Foam. Dry chemical. No known effects under normal use conditions. **Special protective equipment for firefighters** Wear self-contained breathing apparatus and protective suit.

SECTION 6- ACCIDENTAL RELEASE MEASURES

Personal precautions HMIS Methods for cleaning up Use personal protective equipment. Soak up with inert absorbent material.

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SECTION 7- HANDLING AND STORAGE

Handling Storage Always wear recommended Personal Protective Equipment. Keep in properly labelled containers.

SECTION 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Use Personal Protective Equipment	Including Eye Protection, Chemical Resistant Gloves, and appropriate clothing to prevent skin exposure. In addition, a Respiratory program that complies with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.
Engineering Controls	The use and storage of this material requires user to maintain and make available appropriate eyewash and safety shower facilities. Use fume hood or other appropriate ventilation method to keep airborne concentrations as low as possible.
Exposure Limits	No exposure limits for this material have been established by ACGIH, NIOSH, or OSHA.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form Appearance Odor Boiling Point/Range Melting Point/Range Flash Point Autoignition temperature Oxidizing properties Water solubility Liquid No information available No information available °C no data available °C no data available °C no data available °C no data available No information available Soluble

°F no data available °F no data available °F no data available °F no data available

SECTION 10- STABILITY AND REACTIVITY

Stability Materials to avoid Hazardous decomposition Products Polymerization Stable. No information available. No information available.

Hazardous polymerization does not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Product name: Adenosine A2b Receptor (ADORA2B) ACTOne™ Stable Cell Line Product catalog number: CL-01-ADORA2B

Acute toxicity

Chemical Name LD50		LD50	LC50	
	(oral, rat/mouse)	(dermal, rat/rabbit)	(inhalation, rat/mouse)	
dimethyl sulfoxide	14500 mg/kg Oral LD50	no data available	no data available	

May cause eye irritation with susceptible persons.

Principle Routes of Exposure/ Potential Health effects Eyes Skin

Lycs	May cause eye initation with susceptible persons.
Skin	Components of the product may be absorbed into the body through
	the skin. May cause skin irritation in susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	May be harmful if swallowed.
Carcinogenic effects	No information available.
Mutagenic effects	No information available.
Reproductive toxicity	No information available.
Sensitization	No information available.

SECTION 12- ECOLOGICAL INFORMATION

Ecotoxicity effects
Mobility
Biodegradation
Bioaccumulation

Daphnia magna. (Water flea) No information available. Inherently biodegradable. Does not bioaccumulate.

SECTION 13- DISPOSAL CONSIDERATIONS

Decontaminate all wastes before disposal (steam sterilization, chemical disinfection, and/or incineration). Dispose of in accordance with applicable regulations.

SECTION 14- TRANSPORT INFORMATION

Proper shipping name Hazard class Subsidiary Class Eyes Packing group UN-No Not classified as dangerous in the meaning of transport regulations. None None None None

SECTION 15- REGULATORY INFORMATION

Product name: Adenosine A2b Receptor (ADORA2B) ACTOne™ Stable Cell Line Product catalog number: CL-01-ADORA2B

Component	TSCA
Dimethyl sulfoxide 67-68-5 (7-13)	Listed

U.S. Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
dimethyl sulfoxide	-	-	-	-	-

California Proposition 65

This product does not contain chemicals listed under Proposition 65.

WHMIS Hazard Class

Non-controlled

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16- OTHER INFORMATION

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

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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