

Material Safety Data Sheet

Identification of substance:

Product code: Catalog No. B14001, B14002

Product name: Phosphatase Inhibitor Cocktail (EDTA-Free, 100X in DMSO)

Manufacturer/Supplier:

Bioutil LLC. 9330 Kirby Drive, STE 200, Houston, TX 77054 USA

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Revision Date: Dec 19, 2013

Composition/date on component:

Trade name	Chemical Name	Hazardous Ingredient	CAS Registry Number	Molecular Weight	Molecular Formula
AEBSF	4-(2-Aminoethyl)benzenesulfonyl fluoride hydrochloride	AEBSF	30827-99-7	239.5	C ₈ H ₁₀ NO ₂ F x HCl
Aprotinin	Aprotinin	Aprotinin	9087-70-1	6511.44	C ₂₈₄ H ₄₃₂ N ₈₄ O ₇₉ S ₇
Bestatin	(2S)-2-[[[(2S,3R)-3-Amino-2-hydroxy-4-phenylbutanoyl]amino]-4-methylpentanoic acid	Bestatin	58970-76-6	308.4	C ₁₆ H ₂₄ N ₂ O ₄
E-64	trans-Epoxy succinyl-L-leucylamido(4-guanidino) butane L-trans- 3-Carboxyoxiran-2- carbonyl -L-leucylagmatine N-(trans-Epoxy succinyl)-L- leucine 4-guanidinobutylamide	E-64	66701-25-5	357.4	C ₁₅ H ₂₇ N ₅ O ₅
Leupeptin	Leupeptin hemisulfate	Leupeptin	55123-66-5	475.6	Ac-Leu-Leu-argininal x ½ H ₂ SO ₄
Pepstatin A	Isovaleryl-Val-Val-Sta-Ala-Sta	Pepstatin A	26305-03-3	685.9	C ₃₄ H ₆₃ N ₅ O ₉

Identified uses: Laboratory chemicals

Hazards identification:

Hazard Description:

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous according to Directive 67/548/EEC.

Absorbed through skin rapidly

First aid measures:

After inhalation: If inhaled, remove to fresh air; if breathing is difficult, give oxygen; if breathing stops, give artificial respiration.

After skin contact: flush with copious amounts of water; remove contaminated clothing and shoes; call a physician.

After eye contact: check for and remove contact lenses and flush with copious amounts of water; assure adequate flushing by separating the eyelids with fingers; call a physician.

After swallowing: if swallowed, wash out mouth with copious amounts of water; call a physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Fire fighting measures:

Suitable extinguishing agents: water spray, carbon dioxide, dry chemical powder or foam.

Protective equipment: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire hazard: emits toxic fumes such as carbon monoxide, Sulphur oxides etc.

Accidental release measures:

Person-related safety precautions: cordon off area of spill; Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations.

Vapors can accumulate in low areas.

Measures for cleaning/collecting: absorb solutions with finely- powdered liquid-binding material (diatomite, universal binders); decontaminate surfaces and equipment by scrubbing with alcohol; dispose of contaminated material according to section **Disposal Consideration**.

Handling and storage:

Information for safe handling: avoid inhalation and contact with skin, eyes and clothing; material may be an irritant.

Ensure adequate ventilation.

Remove all sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Beware of vapors accumulating to form explosive concentrations.

Vapors can accumulate in low areas.

Storage: store solutions at -20°C. Keep container tightly closed.

Exposure controls and personal protection:

Personal protective equipment as follows:

Breathing equipment: NIOSH/MSHA-approved respirator

Protection of hands: chemical-resistant rubber gloves

Eye protection: chemical safety goggles conforming to EN166

Physical and chemical properties:

Solubility in / Miscibility with water: <1

Appearance Form: liquid

Solvent content: DMSO

Flash point: 87 °C - closed cup

Stability and reactivity:

Stability: stable if stored as directed; avoid strong oxidizing agents

Thermal decomposition / conditions to be avoided: Heat, flames and sparks. protect from light and heat. Exposure to moisture may affect product quality.

Dangerous products of decomposition: thermal decomposition may produce toxic gases such as carbon monoxide, carbon dioxide, and sulphur oxides.

Incompatible materials: Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents

Toxicological information:

RTECS#:

Acute toxicity: none known

Primary irritant effect: not known

Ingestion: May be harmful if swallowed.

On the skin: May be harmful if absorbed through skin. Causes skin irritation.

On the eye: Causes serious eye irritation.

Aggravated Medical Condition: Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.

Ecological information:

General notes: no data available

Disposal consideration:

Dispose of in accordance with prevailing country, federal, state and local regulations.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

Transport information:

DOT:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport

IATA class:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport

Regulations:

Code letter and hazard designation of product: Hazard-determining components of labeling: EU Risk And Safety phrases:

S24/25: Avoid contact with skin and eyes

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28: After contact with skin, wash immediately with plenty of water

S36/37/39: Wear protective clothing, gloves and eye/face protection

R28: Very toxic if swallowed

R38: Irritating to skin

R41: Risk of serious damages to eyes

R48: Toxic; danger of serious damage to health by prolonged exposure

R62: Possible risk of impaired fertility

R63: Possible risk of harm to unborn child

Other information:

The above information is believed to be correct based on our present knowledge but does not purport to be complete. This product is for research use only by trained personnel. The burden of safe use of this material rests entirely with the user. BIOTOOL LTD. disclaims all liability for any damage resulting from use of this material.