

Safety Data Sheet

Section 1: Product & Company Identification

Product Name:	Protease Inhibitor Cocktail VI, for Plant Cells
Product #:	P-1545
Synonyms:	-
Supplier:	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego CA 92131 Tele# + 858-452-9925
Emergency Tele#:	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

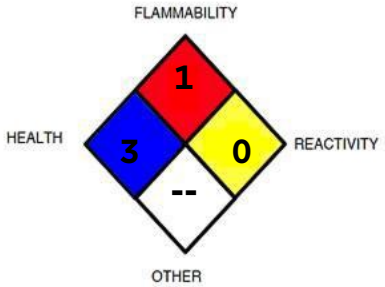
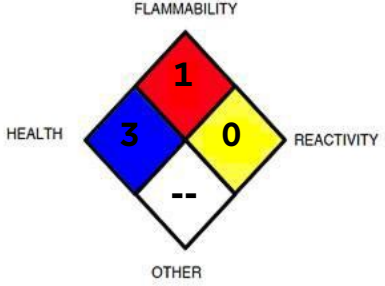
Section 2: Composition / Information on Ingredients

Component	CAS#	MW	Concentration
AEBSF HCl	30827-99-7	239.5	200 mM
Bestatin	65391-42-6	344.8	10 mM
E-64	66701-25-5	357.4	3 mM
Leupeptin	103476-89-7	475.6	2 mM
1,10-Phenanthroline	5144-89-8	198.2	500 mM
Pepstatin A	26305-03-3	685.9	2 mM

Section 3: Hazards Identification

Symbols



HMIS Classification	
NFPA Classification	

Section 4: First Aid Measures

General Overview:	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin:	Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
Eyes:	Flush eyes with water as a precaution.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	No data available
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazardous thermal (de)composition products:	Carbon oxides, Nitrogen oxides (NO _x)
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.
Flash Point:	No data available




Section 6: Accidental Release Measures


Personal Precautions:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods for Clean-up:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: Handling & Storage

Storage:	Store at -20°C.
Handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:	 <p>Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).</p>
Skin and Body:	 

	<p>Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.</p> <p>Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.</p>
Eyes:	 <p>Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p>
Ventilation/Engineering Measures:	Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.
Hygiene:	Handle in accordance with good industrial hygiene and safety practice.
Other:	Contains no substances with occupational exposure limit values.

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	Clear, colorless liquid
Formula	N/A
Molecular Wt.	N/A
Melting Pt.	No data available
Boiling Pt.	No data available
Density:	No data available
Vapor Pressure:	No data available
Evaporation Rate:	No data available
Vapor Density:	No data available
Solubility:	Water, aqueous buffers
Flash Point:	No data available
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Hazardous decomposition products:	Carbon oxides, Nitrogen oxides (NOx)
Materials to Avoid:	Acids, Strong oxidizing agents
Conditions to avoid:	No data available

SECTION 11: Toxicological Information

RTECS#:	1,10-Phenanthroline (CAS 5144-89-8): SF8437000
ACUTE Toxicity:	1,10-Phenanthroline (CAS 5144-89-8): LD50 Oral = 132 mg/kg (Rat)
CHRONIC Toxicity:	N/A
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA

SECTION 12: Ecological Information

Ecotoxicity:	Very toxic to aquatic life with long lasting effects.
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available
Other adverse effects:	No data available
Corrosivity Characteristic:	No data available
General Notes:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal Considerations

Residue Waste or Unused product:	Offer surplus and non-recyclable solutions to a licensed disposal company. 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.
Contaminated Packaging:	Dispose of as unused product.

SECTION 14: Transportation Information

UN ID#:	AEBSF HCl (CAS 30827-99-7): 3261 1,10-Phenanthroline (CAS 5144-89-8): 2811
ADR / RID (LAND):	
DOT regulations:	<p>AEBSF HCl (CAS 30827-99-7): Corrosive solid, acidic, organic, n.o.s. 4-(2-Aminoethyl) benzenesulfonyl fluoride Class: 8 Packing Group: II</p> <p>1,10-Phenanthroline (CAS 5144-89-8): UN number: 2811 Class: 6.1 Packing group: III Proper shipping name: Toxic solids, organic, n.o.s. (o-Phenanthroline hydrate) Poison Inhalation Hazard: No</p>
IMDG/IMO (SEA):	<p>AEBSF HCl (CAS 30827-99-7): Corrosive solid, acidic, organic, n.o.s. Class: 8 Packing group: II</p> <p>1,10-Phenanthroline (CAS 5144-89-8): UN number: 2811 Class: 6.1 Packing group: III EMS-No: F-A, S-A Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (o-Phenanthroline hydrate) Marine pollutant: yes</p>
IATA/DGR (AIR):	<p>AEBSF HCl (CAS 30827-99-7): Corrosive solid, acidic, organic, n.o.s. Class: 8 Packing group: II</p> <p>1,10-Phenanthroline (CAS 5144-89-8):</p>

	UN number: 2811 Class: 6.1 Packing group: III Proper shipping name: Toxic solid, organic, n.o.s. (o-Phenanthroline hydrate)
Special Provisions:	N/A

SECTION 15: Regulatory Information

Health Phrases:	H301 Toxic if swallowed. H314: causes severe skin burns and damage H318 causes serious eye damage H410 Very toxic to aquatic life with long lasting effects
Risk Phrases:	P264 Wash skin thoroughly after handling. P270 Do not eat, drink, or smoke when using this product. P273 Avoid release to the environment.
Safety Phrases:	P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER /doctor. Rinse mouth. P391 Collect spillage. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant.
EU Regulations:	N/A
US Regulations:	TSCA: No products were found California Proposition 65: No products were found New Jersey State Right to Know: 1,10-Phenanthroline (CAS 5144-89-8) Pennsylvania State Right to Know: 1,10-Phenanthroline (CAS 5144-89-8)
U.S. Federal Regulations:	SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Acute Health Hazard SARA 313 toxic chemicals notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found. OSHA: Acute toxicity, oral (Cat. 3); Acute aquatic hazard (Cat. 1); Chronic aquatic hazard (Cat. 1)
WHMIS (Canada):	N/A

SECTION 16: Other Information



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