

Protease Inhibitor Cocktail, Tablet

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard
Issue date: 9/26/2022

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Protease Inhibitor Cocktail
Product code : 190711, 190792

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Covaris, Inc.
14 Gill St., Unit H 14 Gill St., Unit H
Woborn, MA 01801
USA
T +1 (781) 932-3959

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (inhalation:dust,mist) Category 4	H332	Harmful if inhaled
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
Serious eye damage Category 1	H318	Causes serious eye damage
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation)

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H373 - May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation)

Precautionary statements (GHS US) :

P260 - Do not breathe dust.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

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skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
DISODIUM EDTA	CAS-No.: 139-33-3	20 – 30
4-(2-Aminoethyl)benzenesulfonyl Fluoride Hydrochloride	CAS-No.: 30827-99-7	5 – 10

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.
First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes. Get immediate medical advice/attention.
First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause severe burns. May cause damage to organs (respiratory system) through prolonged or repeated exposure (inhalation).
Inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin : Causes severe burns.
Eyes : Serious damage to eyes.
Ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Immediate medical attention and special treatment, if necessary

Get immediate medical attention.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None.

5.2. Specific hazards arising from the chemical

Fire hazard : This product is not classified as flammable or combustible.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear suitable protective clothing. Avoid contact with eyes, skin and clothing.

6.1.1. For non-emergency personnel

Emergency procedures : Do not breathe Dust. Avoid contact with skin and eyes. Evacuate unnecessary personnel. Ventilate area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe Dust. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Wash hands with water and soap. Ensure adequate ventilation.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up.
Incompatible materials : None known.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

DISODIUM EDTA (139-33-3)

No additional information available

4-(2-Aminoethyl)benzenesulfonyl Fluoride Hydrochloride (30827-99-7)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : No particular/specific measures required.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

Impervious clothing

Hand protection:

Wear impervious gloves.

Eye protection:

Goggles + face shield

Skin and body protection:

Impervious clothing

Respiratory protection:

In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Clear, colorless liquid.
Color : Colorless
Odor : None
Odor threshold : No data available
pH : ≈ 7.5
Melting point : No data available
Freezing point : Not applicable
Boiling point : No data available
Flash point : Not applicable
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Non flammable.

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Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

Protease Inhibitor Cocktail	
ATE US (dust, mist)	5 mg/l/4h
DISODIUM EDTA (139-33-3)	
LD50 oral rat	2800 mg/kg body weight
ATE US (oral)	2800 mg/kg body weight
ATE US (gases)	4500 ppmV/4h

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DISODIUM EDTA (139-33-3)	
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
Skin corrosion/irritation	: Causes severe skin burns. pH: ≈ 7.5
Serious eye damage/irritation	: Causes serious eye damage. pH: ≈ 7.5
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).

DISODIUM EDTA (139-33-3)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.015 mg/l air Animal: rat, Animal sex: female, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg body weight Animal: rat, Animal sex: male
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: Not applicable
Symptoms/effects	: May cause severe burns. May cause damage to organs (respiratory system) through prolonged or repeated exposure (inhalation).
Inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	: Causes severe burns.
Eyes	: Serious damage to eyes.
Ingestion	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralization, the product may represent a danger to aquatic organisms.

DISODIUM EDTA (139-33-3)	
EC50 - Crustacea [1]	140 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 60 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	50 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 25.7 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '35 d'

12.2. Persistence and degradability

No additional information available

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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available




SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Dispose of in accordance with applicable federal, state, and local regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
1759	1759	1759	1759
14.2. Proper Shipping Name			
Corrosive solids, n.o.s. (4-(2-Aminoethyl)benzenesulfonyl Fluoride Hydrochloride)	CORROSIVE SOLID, N.O.S.	CORROSIVE SOLID, N.O.S. (4-(2-Aminoethyl)benzenesulfonyl Fluoride Hydrochloride)	CORROSIVE SOLID, N.O.S. (4-(2-Aminoethyl)benzenesulfonyl Fluoride Hydrochloride)
14.3. Transport hazard class(es)			
8	Not applicable	8	8
 Not applicable	Not applicable		
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

DOT
UN-No.(DOT) : UN1759

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DOT Special Provisions (49 CFR 172.102)	: 128 - Regardless of the provisions of §172.101(c)(12), aluminum smelting by-products and aluminum remelting by-products described under this entry, meeting the definition of Class 8, Packing Group II and III may be classed as a Division 4.3 material and transported under this entry. The presence of a Class 8 hazard must be communicated as required by this Part for subsidiary hazards IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle. IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner. T3 - 2.65 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 212
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 15 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 50 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
TDG	
UN-No. (TDG)	: 1759
Emergency Response Guide (ERG) Number	: 154
IMDG	
Special provision (IMDG)	: 274
Limited quantities (IMDG)	: 1 kg
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B21, B4
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.

IATA

No data available

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

4-(2-Aminoethyl)benzenesulfonyl Fluoride Hydrochloride	CAS-No. 30827-99-7	5 – 10%
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15.2. International regulations

CANADA

DISODIUM EDTA (139-33-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Protease Inhibitor Cocktail

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard

Full text of H-phrases	
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.