

(+)-6-Aminopenicillanic acid: sc-239087



The Power to Question

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: (+)-6-Aminopenicillanic acid
Product Number: sc-239087
Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800
Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

No known OSHA hazards

Not a dangerous substance or mixture according to the Global Harmonised System (GHS).

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 6-APA; (2S,5R,6R)-6-Amino-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

Formula: C₈H₁₂N₂O₃S

Molecular Weight: 216.26

No ingredients are hazards according to OSHA criteria.

<i>CAS-No.</i>	<i>EC-No.</i>	<i>Index-No.</i>	<i>Concentration</i>
(+)-6-Aminopenicillanic acid 551-16-6	-	-	-

4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIREFIGHTING MEASURES**Conditions of flammability**

Not flammable or combustible.

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NO_x), sulphur oxides

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C.

Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

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.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	powder	pH	3.4
Boiling point	no data available	Flash point	no data available
Ignition temperature	no data available	Lower explosion limit	no data available
Upper explosion limit	no data available	Vapor pressure	no data available

Density	no data available	Relative vapor density	no data available
Odor	no data available	Odor Threshold	no data available
Melting point/freezing point	198 - 200 °C (388 - 392 °F) - dec.	Partition coefficient: n-octanol/water	log Pow: -3.87 at 22.5 °C (72.5 °F)
Water solubility	2.46 g/l at 20 °C (68 °F) - soluble	Evaporation rate	no data available

Flammability (solid, gas): The product is not flammable. - Flammability (solids)

Auto-ignition temperature: > 400 °C (> 752 °F) at 1,013.0 hPa (759.8 mmHg)

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NOx), sulphur oxides

Other decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50: LD50 Oral - rat - male and female - > 2,000 mg/kg

Inhalation LC50: no data available

Dermal LD50: no data available

Other information on acute toxicity: LD50 Intraperitoneal - mouse - > 1,000 mg/kg

Skin corrosion/irritation

Skin - rabbit - No skin irritation - 4 h - OECD Test Guideline 404

Serious eye damage/eye irritation

Eyes - rabbit - Mild eye irritation - 72 h - OECD Test Guideline 405

Respiratory or skin sensitization

mouse - Does not cause skin sensitization.

Germ cell mutagenicity

Genotoxicity in vitro - mouse - lymphocyte - with or without metabolic activation - negative

Carcinogenicity

Carcinogenicity - rat - Subcutaneous

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site of application.

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

Repeated dose toxicity - rat - male and female - Oral - No observed adverse effect level - 1,000 mg/kg

RTECS: Not available

12. ECOLOGICAL INFORMATION**PBT and vPvB assessment**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

Toxicity

Toxicity to fish: mortality LC50 - *Oncorhynchus mykiss* (rainbow trout) - > 100 mg/l - 96 h Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50 - *Daphnia magna* (Water flea) - > 100 mg/l - 48 h Method: OECD Test Guideline 202

Toxicity to algae: static test EC50 - *Desmodesmus subspicatus* (green algae) - > 55 mg/l - 72 h Method: OECD Test Guideline 201

13. DISPOSAL CONSIDERATIONS**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION**OSHA Hazards**

No known OSHA hazards

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

6-Aminopenicillanic acid

CAS-No.: 551-16-6

New Jersey Right To Know Components

6-Aminopenicillanic acid

CAS-No.: 551-16-6

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

01/29/2013