SAFETY DATA SHEET

MOLTOX®
Molecular Toxicology, Inc.

NAME OF PRODUCT Ampicillin

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product/Catalog Number(s):

22-147 55 mg/vial

Product name:	**Ampicillin**
Synonyms:	Ampicillin sodium salt, D-(−)-α-Aminobenzylpenicillinsodium salt
Manufacturer:	Molecular Toxicology Inc.
Address:	157 Industrial Park Drive, Boone, North Carolina, 28607
Phone:	(1) 828 264 9099 (8:30 – 17:00 EST)
Fax:	828 264 0103
Emergency contact (Chemtrec):	Contact 1800-424-9300 (USA) or 703 527 3887 (International) at other times Email: chemtrec@chemtrec.com; http://www.chemtrec.com/
Recommended use:	Laboratory, For Research Only
Restrictions on use:	Not for clinical use

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture per GSH and EU Directive 1272/2008

Danger

Physical hazards	None known
Health hazards	Respiratory sensitization (Category 1) Skin sensitization (Category 1)
Environmental hazards	See eco-toxicity section 12.

Labelling

Hazard Statements	H317 May cause an allergic skin reaction H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
Precautionary Statements	P261 Avoid breathing dust/ fume/ gas/ mist/vapours/ spray. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves. P285 In case of inadequate ventilation wear respiratory protection. P332 + P352 IF ON SKIN: Wash with plenty of soap and water. P304+341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing P333+313 If skin irritation or rash occurs: Get medical attention/advice P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified or not covered by GHS	None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Components	Purpose	CAS-No	EC-No.	Weight %
Ampicillin Salt (DI water) $C_{16}H_{18}N_3NaO_4S$	Active component against Gram (+/-) bacteria	69-52-3	200-708-1	100%

SECTION 4. FIRST AID MEASURES

Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Eye Contact	Flush eyes with water as a precaution.
Skin Contact	Wash off immediately with plenty of soap and water and rinse thoroughly. Consult a physician.
Ingestion	Rinse mouth with plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Inhalation	Move to fresh air. If required, provide artificial respiration. Consult a physician.
Protection of first-aiders	Not required
In the event that symptoms develop or persists, obtain medical attention.	

Most important symptoms and effects, both acute and delayed

Acute: May cause a rash, nausea or diarrhea
Chronic: Not determined

Indication of any immediate medical attention and special treatment needed

Seek medical attention if rash forms or if breathing difficulties are observed.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Not flammable; use media suitable for extinguishing surrounding fire (carbon dioxide, extinguishing powder or water spray). Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

Hazardous thermal decomposition products: Carbon monoxide, nitrogen oxides, sulfur dioxide, sodium oxides

Advice for firefighters

Fire-fighters should wear fully protective impervious protective equipment and self-contained breathing apparatus (SCBA).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Evacuate surrounding areas. Avoid breathing vapors, mist or gas.

Environmental precautions

Do not release material into drains.

Methods and material for containment and cleaning up

Dispose contaminated material as waste according to section 13. Wipe up or absorb spills with appropriate material (paper towel, absorbent material) and dispose in biohazard. Keep in suitable, closed containers for disposal.

Reference to other sections

Refer to Sections 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of aerosols.

Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities

Store according to product packaging, tightly sealed. Keep in a dry, well-ventilated place. Recommended storage temperature 2-8^{o}C.

Expiration is 2 months from manufacturing

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Contains no substances with occupational exposure limit values.

Monitoring methods

N/A

Exposure controls

Engineering Measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Personal protective equipment

Eye Protection: 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).

Hand Protection

Handle with gloves. Inspect gloves before 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.

Full contact Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Skin and body protection

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.

Respiratory Protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator.For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene Measures - Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms and face thoroughly after handling chemical products, before smoking, eating and using lavatory, and at the end of the work period. Employ techniques to avoid contamination of clothing. Keep away from food, beverages, and feed.

Environmental exposure controls – Do not let product enter drains.

Exposure limits

Permissible Exposure Limits and Threshold Limit Values not specified by OSHA.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Solid, light yellow

Auto-ignition temperature	N/A
Boiling point	no data available
Decomposition temperature	no data available
Evaporation Rate	no data available
Flammable limits in air	N/A
Flash point	N/A
Formula	$C_{16}H_{18}N_3NaO_4S$
Melting point	215°C
Molecular weight	371.39
Odor threshold	no data available
Osmolality	no data available
Partition coefficient	no data available
pH	no data available
Solubility in water	50 g/L
Specific gravity	no data available
Vapor density	no data available
Vapor pressure	no data available
Viscosity	no data available

Other information

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive.

Chemical stability

Stable under recommended storage conditions for expiration period stated on product label

Possibility of hazardous reactions

No hazardous reactions known.

Conditions to avoid

No specific data.

Incompatible materials

Strong oxidizers

Hazardous decomposition products

Other decomposition products – no data available
IN the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD_{50} Oral, Rat > 5,314 mg/kg

Other information on acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
This substance is not considered a carcinogen according to IARC, ACGIH, NTP, or OSHA

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans.

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.
Ingestion May be harmful if swallowed.
Skin May cause skin irritation.
Eyes May cause eye irritation.
Synergistic effects
No data available

Additional toxicological information:

RTECS: CA9275000

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Aquatic ecotoxicity: No data available.
Persistance and degradability: No data available.
Behavior in environment systems: No data available.
Bioaccumulative potential: No data available.
Mobility in soil: No data available...
Additional ecological information:

General notes:
Do not allow product to reach ground water, water course, or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

Results of PBT and vPVB Assessment
PBT: Not applicable
vPvB: Not applicable

Other adverse effects: No further relevant information available.

SECTION 13. DISPOSAL CONSIDERATIONS

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. TRANSPORT INFORMATION

DOT regulations:
Not dangerous goods

IMDG
Not dangerous goods

IATA:
Not regulated

Special precautions for user: Not applicable

Transport/Additional information: None available

SECTION 15. REGULATORY INFORMATION

SARA 302 Components
SARA 302: Chemicals in this material are not 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
Acute Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right-to-Know Act

Pennsylvania Right To Know Components

69-52-3	D Sodium [2S-[2α,5α,6β (S*)]]-6-(aminophenylacetamido)-3,3- dimethyl-7-oxo-4-thia-1 azabicyclo[3.2.0]heptane-2-carboxylat

New Jersey Right To Know Components

69-52-3	Sodium [2S-[2α,5α,6β (S*)]]-6-(aminophenylacetamido)-3,3- dimethyl-7-oxo-4-thia-1 azabicyclo[3.2.0]heptane-2-carboxylat

California Prop. 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Molecular Toxicology, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See www.moltox.com and/or the invoice or packing slip for additional terms and conditions of sale.