SAFETY DATA SHEET

1. IDENTIFICATION

1.1 Product identifiers

Product Name	(2S,4R)-1-Benzyl 2-methyl 4-((tert-butoxycarbonyl)amino)pyrrolidine-1,2-dicarboxylate
CAS No.	189215-90-5
Catalog No.	AMCS041083

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For laboratory research purposes. Not for drug or household use.

1.3 Details of the supplier of the safety data sheet

Company	Achmem, LLC
Email	custv@achmem.com
Telephone	+1-(901)246-3840

1.4 Emergency phone number

Emergency phone (USA): +1-(901)246-3840

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, oral (Category 4) H302
Skin corrosion/irritation (Category 2) H315
Serious eye damage/eye irritation (Category 2A) H319
Acute toxicity, inhalation (Category 4) H332

2.2 Signal word, hazard statement(s), symbol(s) and precautionary statement(s)

Pictogram:
Signal word: Warning
Hazard statement(s)
H302: Harmful if swallowed
H315: Causes skin irritation
H319: Causes serious eye irritation
H332: Harmful if inhaled

Precautionary statement(s)
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P262: Do not get in eyes, on skin, or on clothing.
P264+P265: Wash hands thoroughly after handling. Do not touch eyes.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P281: Use personal protective equipment as required.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352: IF ON SKIN: wash with plenty of soap and water.
P304+P317: IF INHALED: Get medical help.
P305+P354+P338: IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P309+P311: IF exposed or if you feel unwell: call a POISON CENTER or doctor/physician.
P333+P317: If skin irritation or rash occurs: Get medical help.
P337+P317: If eye irritation persists: Get medical help.
P342+P316: If experiencing respiratory symptoms: Get emergence medical help immediately.
P362: Take off contaminated clothing.
P370+P372+P380+P373: In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.
P402: Store in a dry place.
P403+P233+P235+P410: Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight.
P502: Refer to manufacturer or supplier for information on recovery or recycling

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C19H26N2O6
Molecular Weight: 378.4

Component		Concentration
(2S,4R)-1-Benzyl 2-methyl 4-((tert-butoxycarbonyl)amino)pyrrolidine-1,2-dicarboxylate		
CAS No.	189215-90-5	-

4. FIRST AID MEASURES

4.1 Description of necessary measures

If inhaled

If inhaled, relocate to an area with fresh air. If not breathing, administer artificial respiration. Seek medical advice promptly.

In case of skin contact

In case of contact, immediately wash skin with soap and copious amounts of water.

In case of eye contact

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

If swallowed

If swallowed, avoid inducing vomiting. Offer more than two bottles of water to drink. Seek immediate medical guidance.

4.2 Most important symptoms/effects, acute and delayed

The key symptoms and effects are outlined in the labeling (refer to section 2.2) and/or section 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Suitable: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.

5.2 Specific hazards arising from the chemical

Emits toxic fumes under fire conditions.

5.3 Special protective equipment and precautions for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Use respiratory protection. Avoid inhaling vapors, mist, or gas. Ensure proper ventilation. Evacuate people to safe areas. Do not take action without appropriate protective clothing. Refer to section 8 for personal protection measures.

6.2 Methods and materials for containment and cleaning up

Sweep up. Transfer to a correctly labeled salvage container for disposal. Take care to prevent dust from dispersing. Ventilate the area and wash the spill site after collecting the material.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Minimize skin and eye contact. Prevent the generation of dust and aerosols. Thoroughly wash hands after handling. Ensure adequate ventilation in the area. Implement standard fire prevention measures. Refer to section 2.2 for additional precautions.

7.2 Conditions for safe storage, including any incompatibilities

Store tightly sealed in a dry environment. Place in a well-ventilated area. Ensure it is locked up or accessible only to qualified or authorized individuals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

No substances present with occupational exposure limit values.

8.2 Exposure controls

Respiratory Protection

Utilize respirators and components that have been tested and approved according to relevant government standards, such as NIOSH (US) or CEN (EU). If the risk assessment indicates that air-purifying respirators are suitable, employ a dust mask of type N95 (US) or type P1 (EN 143).

Hand Protection

Compatible chemical-resistant gloves.

Eye Protection

Chemical safety goggles.

Body Protection

Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid

Form	No data available
Color	No data available
pH	No data available
BP/BP Range	No data available
MP/MP Range	No data available
Flash Point	No data available
Flammability	No data available
Autoignition Temp	No data available
Oxidizing Properties	No data available
Explosive Properties	No data available
Explosion Limits	No data available
Vapor Pressure	No data available
SG/Density	No data available
Partition Coefficient	No data available
Viscosity	No data available
Vapor Density	No data available
Saturated Vapor Conc.	No data available
Evaporation Rate	No data available
Bulk Density	No data available
Decomposition Temp.	No data available
Solvent Content	No data available
Water Content	No data available
Surface Tension	No data available
Conductivity	No data available
Miscellaneous Data	No data available
Solubility	No data available

10. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid (e.g., static discharge, shock, or vibration)

No data available.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon monoxide, Carbon dioxide, Nitrogen oxides.

11. EXPOSURE CONTROLS / PERSONAL PROTECTION

11.1 Information on toxicological effects

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: No data available.
Reproductive toxicity: No data available.
Specific target organ toxicity - single exposure: No data available.
Specific target organ toxicity - repeated exposure: No data available.
Aspiration hazard: No data available.

11.2 Additional Information

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

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity (aquatic and terrestrial, where available)

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects (such as hazardous to the ozone layer)

No data available.

13. DISPOSAL CONSIDERATIONS

Seek assistance from a licensed professional waste disposal service for proper disposal of this material. Alternatively, dissolve or blend the material with a combustible solvent and incinerate it in a chemical incinerator with an afterburner and scrubber. Dispose of in accordance with official regulations.

14. TRANSPORT INFORMATION

14.1 UN number

No data available.

14.2 UN proper shipping name

No data available.

14.3 Transport hazard class(es)

No data available.

14.4 Packaging group

No data available.

14.5 Environmental hazards

No data available.

14.6 Special precautions for user

No special precautions required.

14.7 Further information

No data available.

15. REGULATORY INFORMATION

15.1 California proposition 65

Not listed on California’s listing of known or potential carcinogens.

15.2 U.S. Federal regulations

SARA 313: Not applicable.

SARA 302: Not applicable.

SARA 311/312 Hazard Categories: See section 2 for more information.

15.3 Safety assessment

No Chemical Safety Assessment.

16. OTHER INFORMATION

The information provided is believed to be accurate but may not cover all scenarios and should be used as a general reference. It is based on current knowledge and applies to the product's safety precautions. This information does not guarantee the product's properties. Achmem, LLC is not responsible for any damages resulting from handling or contact with the product.