



SAFETY DATA SHEET

1. Identification

Product identifier AAV8 (Full Capsids)

Other means of identification
Catalog number 1000302

Recommended use For analytical laboratory use only.

Recommended restrictions Not for use as a drug. Not for administration to humans or animals.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name U. S. Pharmacopeia

Address 12601 Twinbrook Parkway
Rockville
MD
20852-1790
United States

Telephone Customer Service 301-881-0666

Website www.usp.org

E-mail RSTECH@usp.org

Emergency phone number CHEMTREC within US & 1-800-424-9300
Canada
CHEMTREC outside US & +1 703-527-3887
Canada

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement Not available.

Precautionary statement

Prevention Not available.

Response Not available.

Storage Not available.

Disposal Not available.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Biologic products are derived or isolated from natural sources. This material is not known to cause any infection or disease, but should be handled with appropriate practices and containment.

3. Composition/information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Water		7732-18-5	96.57

Chemical name	Common name and synonyms	CAS number	%
Sucrose	Sugar	57-50-1	2
Sodium Chloride		7647-14-5	1.17
Tromethamine	Trometamol TRIS	77-86-1	0.24
Magnesium Chloride		7786-30-3	0.01
AAV		No Data	<0.01
Poloxalene	Polyethylene-polypropylene block copolymer	9003-11-6	0.01

Information provided in the SDS is not specific to the lot provided. Refer to the label and USP Certificate/Product Information Sheet for the assigned value of a particular lot.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	None known.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate personal protective equipment. Avoid inhalation of vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation.
Methods and materials for containment and cleaning up	Absorb spillage with suitable absorbent material. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	As a general rule, when handling USP materials, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential.
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Conditions for safe storage, including any incompatibilities Store in tight container. This material should be handled and stored per label instructions to ensure product integrity.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Sucrose (CAS 57-50-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
Sucrose (CAS 57-50-1)	TWA	10 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value	Form
Sucrose (CAS 57-50-1)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls For laboratory operations, use good technique and limit open handling. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

Skin protection

Hand protection Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent.

Other Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors.

Respiratory protection Respirators are generally not required for laboratory operations. Choose respiratory protection appropriate to the task and the level of existing engineering controls.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Handling practices in this SDS are recommendations for laboratory use of USP materials.

9. Physical and chemical properties

Appearance Appearance descriptions are general information and not specific to any USP lot.

Physical state Liquid.

Form Liquid.

Color Colorless.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

**Partition coefficient
(n-octanol/water)** Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

10. Stability and reactivity

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

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.

11. Toxicological information**Information on likely routes of exposure**

Inhalation Knowledge about health hazard is incomplete.

Skin contact Knowledge about health hazard is incomplete.

Eye contact Knowledge about health hazard is incomplete.

Ingestion Knowledge about health hazard is incomplete.

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects**Acute toxicity**

Components	Species	Test Results
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Magnesium Chloride (CAS 7786-30-3)

Acute**Dermal**

LD50	Rat	> 2000 mg/kg
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Oral

LD50	Mouse	7600 mg/kg
	Rat	8100 mg/kg
		2800 mg/kg

Poloxalene (CAS 9003-11-6)

Acute**Dermal**

LD50	Rabbit	> 10000 mg/kg
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Oral

LD50	Rat	5700 mg/kg
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Components	Species	Test Results
Sodium Chloride (CAS 7647-14-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 10000 mg/kg
Oral		
LD50	Mouse	4000 mg/kg
	Rat	3000 mg/kg
Sucrose (CAS 57-50-1)		
Oral		
LD50	Rat	29700 mg/kg
Tromethamine (CAS 77-86-1)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 5000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
		5900 mg/kg
Skin corrosion/irritation	Based on available data, the classification criteria are not met.	
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.	
Local effects		
Sodium Chloride		Eye irritation Result: Moderate. Species: Rabbit
Magnesium Chloride		Eye irritation Result: Negative. Species: Rabbit
Poloxalene		Eye irritation Result: Negative. Species: Rabbit
Tromethamine		Eye irritation Result: Negative. Species: Rabbit Skin irritation Result: Moderate irritation at 1%. Species: Human Skin irritation Result: Moderate to severe irritation. Species: Rabbit
Poloxalene		Skin irritation Result: Negative. Species: Rabbit
Sodium Chloride		Skin irritation Result: Negative. Species: Rabbit
Tromethamine		Skin irritation Result: Negative. Species: Rabbit
Magnesium Chloride		Skin irritation, (human skin model test) Result: Negative.
Respiratory or skin sensitization		
Respiratory sensitization	Knowledge about sensitization hazard is incomplete.	
Skin sensitization	Based on available data, the classification criteria are not met.	

Tromethamine	Guinea pig maximization test Result: Negative.
Magnesium Chloride	Guinea pig maximization test Result: Non-sensitizing.
Germ cell mutagenicity	Knowledge about health hazard is incomplete.
Mutagenicity	
Sucrose	Mutagenicity, Chromosomal aberrations in CHO-WBL cells Result: Positive: (+/- activation) Mutagenicity, Mouse lymphoma test Result: Negative (+/- activation)
Carcinogenicity	Knowledge about carcinogenicity is incomplete.
Magnesium Chloride	< 2 % Carcinogenicity Result: Negative. Species: Mouse Test Duration: 2 years
Sodium Chloride	1 - 2 % Oral feed study Result: Negative. Species: Rat Test Duration: 2 years
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	Based on available data, the classification criteria are not met.
Reproductivity	
Magnesium Chloride	< 1000 mg/kg/day Reproductivity / Developmental Result: No adverse effects observed. Species: Rat
Tromethamine	100 - 300 mg/kg/day Reproductivity / Developmental Result: High dose group experienced post-implantation loss and decreased litter size. Species: Rat 30 - 300 mg/kg/day Developmental Result: No evidence of maternal or developmental toxicity. High dose group had scabbing and moderate to severe scaling at test site. Species: Rat
Specific target organ toxicity - single exposure	Knowledge about health hazard is incomplete.
Specific target organ toxicity - repeated exposure	Knowledge about health hazard is incomplete.
Aspiration hazard	Knowledge about health hazard is incomplete.

12. Ecological information

Ecotoxicity

Components		Species	Test Results
Magnesium Chloride (CAS 7786-30-3)			
Aquatic			
Algae	EC50	Algae	> 100 mg/l, 72 hours
Crustacea	LC50	Daphnia magna	548.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2120 mg/l, 96 hours

Components	Species		Test Results
Sodium Chloride (CAS 7647-14-5)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	>= 340.7 - <= 469.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	>= 6020 - <= 7070 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.		
Bioaccumulative potential	No data available.		
Octanol/water partition coefficient log Kow			
Tromethamine			-1.56
Mobility in soil	No data available.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

13. Disposal considerations

Disposal instructions	Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.
General information	It is the shipper's responsibility to determine the correct transport classification at the time of shipment.

15. Regulatory information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Toxic Substances Control Act (TSCA)	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	
Not regulated.	
CERCLA Hazardous Substance List (40 CFR 302.4)	
Not listed.	
SARA 304 Emergency release notification	
Not regulated.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	
Not listed.	

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical No**SARA 313 (TRI reporting)**

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 04-08-2025**Version #** 01

Disclaimer USP materials are sold for analytical laboratory use only, and NOT for human consumption. The information contained herein is applicable solely to the chemical substance when used for analytical laboratory use and does not necessarily relate to any other use of the substance described, (i.e. at different concentrations, in drug dosage forms, or in bulk quantities). USP materials are intended for use by persons having technical skill and at their own discretion and risk. This information has been compiled by USP staff from sources considered to be scientifically reliable but has not been independently verified by USP. USP does not guarantee the accuracy or completeness of the information from these sources included herein nor should the statements contained herein be considered an official expression by USP. USP does not independently create or develop the information included in this safety data sheet. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE is made with respect to the information contained herein.