

ADENOCARD[®] IV (Adenosine) Injection

373412

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name	Adenocard [®] IV (Adenosine) Injection
Material Name	Adenosine
Chemical formula of active ingredient	C ₁₀ H ₁₃ N ₅ O ₄
CAS number	58-61-7
Chemical name of active ingredient	6-amino-9-β-D-ribofuranosyl-9-H-purine
Use	Diagnostic Agent
Supplier of Data	Astellas Pharma US, Inc. Three Parkway North Deerfield, IL 60015-2548
For emergency or product information, call	(800) 727-7003

2. COMPOSITION/INFORMATION ON INGREDIENTS

Specific chemical identity	6-amino-9-β-D-ribofuranosyl-9-H-purine
OSHA PEL	No data available.
ACGIH TLV	No data available.

Product also contains the excipient, sodium chloride. The pH range of the solution is approximately 4.5 to 7.5.



3. HAZARDS IDENTIFICATION

Emergency Overview	EXERCISE CARE TO PREVENT CONTACT OR EXPOSURE. See sections 4 and 11 for effects in animals.
Routes of Absorption	Inhalation, ingestion, eye and skin absorption.
Acute effects	See section 11.
Target Organs/ systemic toxicity	See section 11.
Reproductive/ developmental toxicity	See section 11.
Mutagenicity and carcinogenicity	See section 11.
Occupational exposure limit	No data available.
Medical conditions aggravated by exposure	Pre-existing skin and respiratory conditions, may cause exacerbation of asthma; second or third degree heart block.
Symptoms of Exposure	If this product is inhaled it may cause exacerbation of asthma. Potential adverse reactions from prescribed doses and overdoses are described in the package insert; and include: flushing, chest discomfort, dyspnea or urge to breathe deeply, headache, throat, neck or jaw discomfort, gastrointestinal discomfort, lightheadedness/dizziness, upper extremity discomfort, ST segment depression, first-degree atrio-ventricular (AV) block; second-degree AV block, paresthesia, hypotension, nervousness and arrhythmias. Occupational exposure has not been fully investigated.

4. FIRST AID MEASURES

Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician for treatment advice.
Skin contact	Remove contaminated clothing immediately. Rinse skin immediately with plenty of water for 15-20 minutes. Call a physician for treatment advice.
Inhalation	Move person to fresh air immediately. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible. Call a physician for further treatment advice.
Ingestion	Immediately call a physician. Do not induce vomiting unless told to do so by a poison control center or physician. Do not give any liquid to an unconscious person. Do not give anything by mouth to an unconscious person.

For Adverse Reaction Reporting, call (800) 727-7003, Monday through Friday 8:00AM to 4:30 PM CST, fax (847) 317-1241 or email: safety-us@us.astellas.com. In case of emergency, call 911 or an ambulance.

5. FIRE-FIGHTING MEASURES

Extinguishing media	Water spray, dry chemical, carbon dioxide or foam as appropriate.
Special fire-fighting procedures	Wear self-contained breathing apparatus and protective clothing. Products of combustion include: smoke, and NO _x . When heated to decomposition it emits toxic fumes of NO _x .

6. ACCIDENTAL RELEASE MEASURES

In case of spill or release	Wear gloves, safety glasses or goggles, boots, and lab coat or coveralls to prevent contact. Wash contaminated area with water and dispose in waste water treatment system (see Section 13 for more details).
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7. HANDLING AND STORAGE

Special precautions – Storage	Store product at controlled room temperature 15° – 30°C (59° - 86°F); do not refrigerate; protect from freezing. Handle all pharmaceutical products in a way that will avoid contact with and inhalation of dust, fumes, mists, and / or vapors associated with the product.
Label precautionary statement	Material intended for clinical uses only.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Occupational exposure band / handling category	No data available.
Protective clothing and equipment	Under indicated use, general room ventilation is usually satisfactory.
Respiratory protection	With satisfactory ventilation, respiratory protection not usually required.
Skin protection	Wear safety glasses or goggles, disposable latex gloves and garments if direct skin contact is anticipated.
Ventilation	Use local exhaust ventilation when necessary.
Comments	None

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solution
Color	Clear
Odor	None
Boiling point	No data available.
Melting point of active ingredient	234 - 235°C (453-455°F)
Freezing point	No data available.
Percent volatility	No data available.
Specific gravity (H ₂ O=1)	No data available.
Molecular weight of active ingredient	267.24
Solubility of active ingredient	Water soluble.
Vapor pressure (mmHg)	No data available.
Vapor density (Air = 1)	No data available.
Evaporation rate (Butyl acetate = 1)	No data available.
pH	4.5 – 7.5

10. STABILITY AND REACTIVITY

Stability	Adenocard is stable.
Incompatibility	Do not refrigerate or freeze.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	No data available.
Repeated dose toxicity	No data available.
Carcinogenicity	Studies in animals have not been performed to evaluate the carcinogenic potential of Adenocard (adenosine injection).
Genotoxicity	Adenosine was negative in the Salmonella/Mammalian-Microsome Plate Incorporation Mutagenicity Assay.
Teratogenicity/ Reprotoxicity	Animal reproduction studies have not been conducted with adenosine; nor have studies been performed in pregnant women. As adenosine is a naturally occurring material, widely dispersed throughout the body, no fetal effects would be anticipated. However, since it is not known whether Adenocard can cause fetal harm when administered to pregnant women, Adenocard should be used during pregnancy only if clearly needed.
Local irritation	No data available.

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Spills	Wash contaminated area with water and dispose in waste water treatment system in accordance with state and local regulatory requirements.
Waste disposal	Dispose waste in accordance with state and local regulatory requirements.

14. TRANSPORTATION INFORMATION

DOT shipping name	Not regulated.
DOT hazard class/ division	Not regulated.
DOT #	Not regulated.
Packaging authorization	Not regulated.
Non-bulk packaging	Not regulated.
Quantity limits	Not regulated.
DOT packaging group	Not regulated.
DOT labels	Not regulated.
Vessel stowage	Not regulated.

15. REGULATORY INFORMATION

US TSCA	No data available.
SARA	No data available.
EU risk and safety phrases	No data available.

16. OTHER INFORMATION

None

ABREVIATIONS

CAS: Chemical Abstract Service
DOT: Department of Transportation
N/A: Not Applicable
OEL: Occupational Exposure Limit
SARA: Superfund Amendments and Reauthorization Act
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act

