

Safety Data Sheet

ACTIVASE® Vials (50 mg)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ACTIVASE® Vials (50 mg)
 Product code SAP-10053299
 Synonyms - ACTIVASE 50mg

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

Use - pharmaceutical active substance (thrombolytic) *1

1.3. Details of the supplier of the safety data sheet

Company information	Enquiries: Genentech, Inc. 1 DNA Way South San Francisco USA-CA 94080 United States of America Phone 001-(650) 225-1000 E-Mail info.sds@roche.com US Chemtrec phone: (800)-424-9300	Local representation:
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1.4. Emergency telephone number

Emergency telephone number US Chemtrec phone: (800)-424-9300

*1 referring to: Alteplase

SECTION 2: Hazards identification

Classification of the substance or mixture / Label elements

GHS Classification no classification and labelling according to GHS

Other hazards

Note - no information available

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SECTION 3: Composition/information on ingredients

Characterization 0.5 M arginine phosphate buffer is used as a buffering agent to maintain pH at 7.3.

Ingredients	Concentration	GHS-Classification (pure ingredient)
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Alteplase 105857-23-6	< 2.17 %	
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*1 referring to: Alteplase

SECTION 4: First aid measures

4.1. Description of first aid measures

Eye contact - rinse immediately with tap water for at least 20 minutes - open eyelids forcibly

Skin contact - remove immediately contaminated clothes, wash affected skin with water and soap - do not use any solvents

Inhalation - remove the casualty to fresh air and keep him/her calm
- in the event of symptoms get medical treatment

4.2. Most important symptoms and effects, both acute and delayed

Note - no information available

4.3. Indication of any immediate medical attention and special treatment needed

Note to physician - treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media - adapt extinguishing media to surrounding fire conditions

Flash point (liquid) not applicable

Unsuitable extinguishing media - full water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards - no particular hazards known

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5.3. Advice for firefighters

- Protection of fire-fighters - precipitate gases/vapours/mists with water spray
- use self-contained breathing apparatus
- Special method of fire-fighting - if possible precipitate fire gases with a water jet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Personal precautions - ensure adequate ventilation

6.2. Environmental precautions

- Environmental protection - do not allow to enter drains or waterways

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up - collect solids (avoid dust formation) and hand over to waste removal

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Suitable materials - glass

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions - 2 - 30 °C
- protected from light
- Validity - see "best use before" date stated on the label, after opening the content should be used within a short period, any remaining reconstituted solution should be discarded
- Packaging materials - vials

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- Threshold value (USA) air - STEL: 3 mg/m³ (4 x 15 min) *2
- ACGIH-TLV: 1 mg/m³ *2
- Threshold value (Roche) air - IOEL (Internal Occupational Exposure Limit): 0.2 mg/m³ *1

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8.2. Exposure controls

Respiratory protection	- Respiratory protection is recommended as a precaution to minimize exposure. Effective engineering controls are considered to be the primary means to control worker exposure. Respiratory protection should not substitute for feasible engineering controls. - in case of open handling or accidental release: particle mask or respirator with independent air supply
Hand protection	- protective gloves (neoprene, nitrile or butyl rubber)
Eye protection	- safety glasses
*1 referring to:	Alteplase
*2 referring to:	Phosphoric acid

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Color	white to off-white	
Form	lyophilized powder	
Molecular mass	~ 64 kDa	*1
Solubility	148'700 mg/l, water (20 °C)	*3
Partition coefficient	log P _{ow} -4.20 (octanol/water°C)	*3
pH value	7.3 (reconstituted solution)	

9.2. Other information

Note	- no information available
*1 referring to:	Alteplase
*3 referring to:	L-Arginine

SECTION 10: Stability and reactivity

10.1. Reactivity

Note	- no information available
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10.2. Chemical stability

Stability	- does not contain any antimicrobial preservative; therefore, care must be taken to ensure the sterility of the prepared reconstituted solution - do not freeze the reconstituted solution
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10.3. Possibility of hazardous reactions

Note - no information available

10.4. Conditions to avoid

Conditions to avoid - temperatures above 30 °C
- light

10.5. Incompatible materials

Note - no information available

10.6. Hazardous decomposition products

Note - no information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	- not bioavailable by oral administration	*1
	- TD ₁₀ > 10 mg/kg (i.v., rat)	*1
	- LD ₅₀ 1'530 mg/kg (oral, rat)	*2
	- LC ₅₀ > 850 mg/m ³ (inhal., rat, 1 h)	*2
	- LD ₅₀ 2'740 mg/kg (dermal, rabbit)	*2
	- LD ₅₀ > 5'110 mg/kg (oral, rat)	*3
Subacute toxicity	- LD ₀ 10 mg/kg/d (i.v., several species, 14 d)	*1
Local effects	- skin: non-irritant (rabbit; OECD No. 404)	*3
	- eye: not severe irritant or corrosive	*3
	- skin: corrosive	*2
Sensitization	anaphylactic reactions may occur following the intravenous application of proteins	*1
Mutagenicity	- does not induce chromosomal aberrations in vitro (OECD No. 473 (Mammalian Cytogenic Test))	*1
	- negative (Ames test)	*1
	- negative, both with and without metabolic activation (in vitro test system; OECD No. 473 (Mammalian Cytogenic Test))	*3
Carcinogenicity	- no information available	
Reproductive toxicity	- Alteplase has been shown to have an embryocidal effect in rabbits when intravenously administered at a dose of 3 mg/kg, which is roughly twice the human dose for acute myocardial infarction	*1
STOT-single exposure	- no information available	

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STOT-repeated exposure	- no information available
Aspiration hazard	- no information available
Potential Health Effects	- Exposure: Inhalation, Ingestion, Skin contact, Eye contact - Carcinogenicity: not listed by NTP, IARC or OSHA
*1 referring to:	Alteplase
*2 referring to:	Phosphoric acid
*3 referring to:	L-Arginine

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	- barely toxic for fish (zebrafish) LC ₅₀ (96 h) 2800 mg/l NOEC (96 h) 1000 mg/l (OECD No. 203, semistatic)	*3
	- barely toxic for planktonic crustaceans (Daphnia magna) NOEC (24 h) 1000 mg/l (OECD No. 202)	*3
	- barely toxic for microorganisms (Pseudomonas putida) EC ₁₀ (16 h) > 10000 mg/kg (DIN 38'412, part 8)	*3
	- no information available	*1
	- moderately toxic for fish (fish, unspecified) LC ₅₀ 70 mg/l	*2

12.2. Persistence and degradability

Ready biodegradability	- globular proteins are generally well biodegradable	*1
	- readily biodegradable	*3

12.3. Bioaccumulative potential

Note	- no information available
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12.4. Mobility in soil

Note	- no information available
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12.5. Results of PBT and vPvB assessment

Note	- no information available
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12.6. Other adverse effects

Note - no information available

*1 referring to: Alteplase
*2 referring to: Phosphoric acid
*3 referring to: L-Arginine

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues - observe local/national regulations regarding waste disposal

SECTION 14: Transport information

Note - not classified as Dangerous Good according to the Dangerous Goods Regulations, proper shipping name non-regulated

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

TSCA Status - FDA Exemption - not on inventory

Reporting Requirements - The United States Environmental Protection Agency (USEPA) has not established a Reportable Quantity (RQ) for releases of this material.
- In New Jersey, report all releases, which are likely to endanger the public health, harm the environment or cause a complaint, to the NJDEPE Hotline and to local officials.
- State and local regulations vary and may impose additional reporting requirements.

SECTION 16: Other information

Note - Please note this Safety Data Sheet for the bulk product does not apply for the finished, packaged medicinal product intended for the final user.

Edition documentation - changes from previous version in sections 7

The information in this safety data sheet is based on current scientific knowledge. It should not be taken as expressing or implying any warranty concerning product characteristics.