# 1. PRODUCT

## **1.1 Product identifiers**

Name: Amantadine hydrochloride

CAS-No.: 665-66-7

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

Identified uses : Laboratory chemicals, Manufacture of substances

### 2. HAZARDS 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

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Warning
Hazard statement(s)	H302 Harmful if swallowed.
Precautionary statement(s)	P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P330 Rinse mouth. P501 Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No data available

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1 Substances

Synonyms:	1-Adamantanamine hydrochloride 1-Aminoadamantane hydrochloride 1-Adamantylamine hydrochloride	
Formula:	C <sub>10</sub> H <sub>17</sub> N · HCI	
CAS-No.:	665-66-7	
EC-No.:	211-560-2	

### Hazardous components

Component	Classification	Concentration
Amantadine hydrochloride		
	Acute Tox. 4; H302	90 -100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 4.1 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.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

# 4.2 Indication of any immediate medical attention and special treatment needed

no data available

# **5. FIREFIGHTING MEASURES**

## 5.1 Extinguishing media

## Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

no data available

# 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate

ventilation. Avoid breathing dust.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

# 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

# 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

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

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

## Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

## Appropriate engineering controls

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

workday.

### Personal protective equipment

Eye/face protection	Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection	Handle with gloves. Gloves must be inspected prior to 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.
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).
Control of environmen tal exposure	Do not let product enter drains.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

Appearance	Form: solid
Odour	no data available
Odour Threshold	no data available
рН	no data available
Melting point/freezing point	Melting point/range: 300 °C (572 °F)
Initial boiling point and boiling range	no data available
Flash point	no data available
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Upper/lower flammability or explosive limits	no data available
Vapour pressure	no data available
Vapour density	no data available
Relative density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available

Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

# 9.2 Other safety information

no data available

# **10. STABILITY AND REACTIVITY**

### **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

no data available

## 10.5 Incompatible materials

Strong oxidizing agents

### **10.6 Hazardous decomposition products**

Other decomposition products - no data available

In the event of fire: see section 5

# **11. TOXICOLOGICAL INFORMATION**

### 11.1 Information on toxicological effects

Acute toxicity	
LD50 Oral - rat - 800 mg/kg Inhalation: no data available Dermal: no data available no data available	
Skin corrosion/irritation	
no data available	
Serious eye damage/eye irritation	
no data available	
Respiratory or skin sensitisation	
no data available	
Germ cell mutagenicity	
no data available	
Carcinogenicity	
IARC: No component of this product present at levels greater than or probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or carcinogen or potential carcinogen by NTP.	or equal to 0.1% is identified as a equal to 0.1% is identified as a
Reproductive toxicity	
no data available 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

#### **Additional Information**

#### RTECS: AU4375000

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

# **12. ECOLOGICAL INFORMATION**

#### 12.1 Toxicity

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 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

no data available

# **13. DISPOSAL CONSIDERATIONS**

# 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

# Contaminated packaging

Dispose of as unused product.

# **14. TRANSPORT INFORMATION**

### DOT (US)

Not dangerous goods

# IMDG

Not dangerous goods

### ΙΑΤΑ

Not dangerous goods

### **15. REGULATORY INFORMATION**

## SARA 302 Components

SARA 302: No chemicals in this material are 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

Component	CAS-No.	Revision Date
Amantadine hydrochloride	665-66-7	2009-07-17

### New Jersey Right To Know Components

Component	CAS-No.	Revision Date
Amantadine hydrochloride	665-66-7	2009-07-17

# California Prop. 65 Components

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Component	CAS-No.	Revision Date
Amantadine hydrochloride	665-66-7	2007-09-28

## **16. OTHER INFORMATION**

## Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity

H302 Harmful if swallowed.

#### **HMIS** Rating

Health hazard: 1

Chronic Health Hazard:

Flammability: 0

Physical Hazard 0

### **NFPA Rating**

Health hazard: 1

Fire Hazard: 0

Reactivity Hazard: 0