

# MATERIAL SAFETY DATA SHEET

Version 1.0, Jun 2014

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

1.1 Product identifiers

Product Name: Fasudil Hydrochloride

Catalog Number: SM49 CAS Number: 105628-07-7

IUPAC Name: 5-(1,4-diazepan-1-ylsulfonyl)isoquinoline hydrochloride

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

Identified Uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Cell Guidance Systems

Moneta Building, Babraham Research Campus,

Cambridge CB22 3AT, UK

 Web:
 www.cellgs.com

 Email
 tech@cellgs.com

 Telephone:
 + 44 (0)1223 850186

1.4 Emergency Telephone Emergency Tel: + 44 (0) 1223 850186 (09.00 - 17.00 GMT)

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

HA-1077

2.2 Other hazards

none

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1 Substances

 $\begin{array}{ll} \mbox{Product Name:} & \mbox{Fasudil Hydrochloride} \\ \mbox{Formula:} & \mbox{C}_{14}\mbox{H}_{17}\mbox{N}_3\mbox{O}_2\mbox{S} \bullet \mbox{HCI} \\ \end{array}$ 

Molecular Weight: 327.83 CAS Number: 105628-07-7

#### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

General advice. Consult a doctor and show this safety data sheet.

If inhaled. Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial

respiration. Consult a doctor.

In case of skin contact. Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing

and shoes and wash before reuse. Consult a doctor.

In case of eye contact. Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

If swallowed. Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by

mouth to an unconscious person. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

## 5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media Use water spray, carbon dioxide, dry chemical powder or foam.

5.2 Special hazards arising from the substance or mixture In combustion, may emit toxic fumes such as carbon monoxide.

5.3 Precautions for fire-fighters Wear suitable protective clothing to prevent contact with skin and eyes and self-

contained breathing apparatus.

#### 6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure ventilation. Avoid breathing vapors, mist, dust or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders). Decontaminate surfaces and equipment by scrubbing with alcohol. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities.

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Recommended storage temperature: Store at -20°C

7.3 Specific end uses

Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

### 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

Use in a fume hood where applicable. Ensure all engineering measures described

under section 7 of SDS are in place.

Ensure laboratory is equipped with a safety shower and eye wash station.

Personal protective equipment

Skin protection Use appropriate chemical resistant gloves (minimum requirement use standard BS EN

374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly

after handling.

Body protection Wear appropriate protective clothing.

Respiratory protection Use a NIOSH/MSHA-approved respirator.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance White crystalline solid Vapor pressure No data available

Odor None

Vapor density
Odor threshold
Relative density
PH
No data available

Solubility(ies) Soluble in DMSO up to about 95 mg/mL and soluble in water up to about 200 mg/mL

Melting / freezing pointNo data availablePartition coefficientNo data availableBoiling point / rangeNo data availableAuto-ignition temperatureNo data availableFlash pointNo data availableDecomposition temperatureNo data availableEvaporation rateNo data available

Viscosity

Ro data available
Flammability (solid, gas)

Explosive properties

No data available
Upper / lower flammability or explosive limits

Oxidising properties

No data available
No data available

9.2 Other safety information

No data available

#### 10. STABILITY AND REACTIVITY

10.1 Reactivity Stable under recommended transport or storage conditions.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions Hazardous reactions will not occur under normal transport or storage conditions. Decomposition

may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid Heat, light.

10.5 Incompatible materials Strong acids/alkalis, strong oxidising/reducing agents.

10.6 Hazardous decomposition products In combustion may emit toxic fumes. Thermal decomposition may produce toxic gases such as

carbon monoxide and carbon dioxide.

#### 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

Acute Toxicity No data available

Skin corrosion/irritation Classification criteria are not met based on available data Serious eye damage/irritation Classification criteria are not met based on available data Respiratory or skin sensitization Classification criteria are not met based on available data Germ cell mutagenicity Classification criteria are not met based on available data Carcinogenicity Classification criteria are not met based on available data Reproductive toxicity Classification criteria are not met based on available data Specific target organ toxicity - single exposure Classification criteria are not met based on available data Specific target organ toxicity - repeated exposure Classification criteria are not met based on available data Aspiration hazard Classification criteria are not met based on available data

Symptoms / Routes of exposure

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Delayed / Immediate Effects:

Additional Information

No known symptoms.

RTECS No: Not available

Exposure may cause irritation to eyes, mucous membranes, upper respiratory tract and skin

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

#### 12. ECOLOGICAL INFORMATION

12.1 Toxicity
12.2 Persistence and degradability
12.3 Bioaccumlative potential
12.4 Mobility in soil
12.5 Results of PBT and vPvB assessment
No data available
No data available
No data available

12.6 Other adverse effects

May be harmful to the aquatic environment.

#### 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Transfer to a suitable container and arrange for collection by specialized disposal company in accordance

with National legislation.

Contaminated packaging Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with

National legislation.

#### 14. TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID and IATA.

14.1 UN-Number Does not meet the criteria for classification as hazardous for transport.
 14.2 UN proper shipping name Does not meet the criteria for classification as hazardous for transport.
 14.3 Transport hazard class(es) Does not meet the criteria for classification as hazardous for transport.
 14.4 Packaging group Does not meet the criteria for classification as hazardous for transport.

14.5 Environmental hazards This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a

marine pollutant according to the IMDG Code.

14.6 Special precautions for users No data available

#### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

S22: Do not breathe dust

S24/25: Avoid contact with skin and eyes

S36/37/39: Wear suitable protective clothing, gloves, and eye/face protection

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been made for this product.

## 16. OTHER INFORMATION

Copyright 2013 Cell Guidance Systems. This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

### End of safety data sheet