

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 10 Jan 2023

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

#### 1.1. Product name:

Dopamine hydrochloride

#### 1.1. Catalog No.:

679507

#### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

#### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

#### 1.4. Emergency telephone number

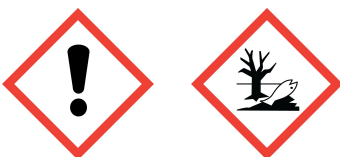
HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

### 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
Acute toxicity, Oral (Category 4), H302  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410 Classification according to EU Directives 67/548/EEC or 1999/45/EC  
Xn, N Harmful, Dangerous for the environment  
R22, R50/53

#### 2.2. Label elements

##### 2.2.1. Pictogram



##### 2.2.2.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.

P501 Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard

Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : 3,4-Dihydroxyphenethylaminehydrochloride

4-(2-Aminoethyl)-1,2-benzenediolhydrochloride

2-(3,4-Dihydroxyphenyl)ethylaminehydrochloride

3-Hydroxytyramine hydrochloride

Formula : C8H11NO2 · HCl

Molecular weight : 189,64 g/mol

CAS-No. : 62-31-7

EC-No. : 200-527-8

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component Classification Concentration

Dopamine hydrochloride

CAS-No.

EC-No.

62-31-7

200-527-8

Acute Tox. 4; Aquatic Acute 1;

Aquatic Chronic 1; H302,

H410

<= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component Classification Concentration

Dopamine hydrochloride

CAS-No.

EC-No.

62-31-7

200-527-8

Xn, N, R22 - R50/53 <= 100 %

#### 3.1.1. Formula

C8H12ClNO2

#### 3.1.2. Molecular Weight (g/mol)

189.64

### 3.1.3. CAS-No.

62-31-7

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

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

No data available

## 5. FIRE-FIGHTING 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 (NO<sub>x</sub>), Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting 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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### 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

Protect against light. Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

Keep in a dry place.

Storage class (TRGS 510): Non Combustible Solids

#### 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

#### 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 environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: powder  
Colour: white
  - b) Odour No data available
  - c) Odour Threshold No data available
  - d) pH 3,0 - 5,5 at 40,0 g/l at 20 °C
  - e) Melting point/freezing point  
Melting point/range: 248 - 250 °C
  - f) Initial boiling point and boiling range  
No data available
  - g) Flash point No data available
  - h) Evaporation rate No data available
  - i) Flammability (solid, gas) No data available
  - j) Upper/lower flammability or explosive limits  
No data available
  - k) Vapour pressure No data available
  - l) Vapour density No data available
  - m) Relative density No data available
  - n) Water solubility No data available
  - o) Partition coefficient: noctanol/water  
log Pow: -2,58 at 25 °C
  - p) Auto-ignition temperature  
No data available
  - q) Decomposition temperature  
No data available
  - r) Viscosity No data available
  - s) Explosive properties No data available
  - t) 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  
Light.
- 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 - 1.870 mg/kg  
LC50 Inhalation - Rat - 4 h - > 5,0 mg/l

(OECD Test Guideline 403)

LD50 Intravenous - Rat - 4,8 mg/kg

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes.

Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Dyspnea. Skin corrosion/irritation  
Skin - Rabbit

Result: No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

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 equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

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: UX1092000

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

Liver - Irregularities - Based on Human Evidence

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish static test LC50 - Leuciscus idus (Golden orfe) - 2.200,0 - 4.600,0 mg/l - 96,0 h  
(DIN 38412)

Toxicity to daphnia and  
other aquatic

invertebrates

static test EC50 - Daphnia magna (Water flea) - 24,5 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test EC50 - Algae - < 1 mg/l - 72 h

(OECD Test Guideline 201)

### 12.2 Persistence and degradability

Biodegradability Biotic/Aerobic

Result: 60 - 70 % - According to the results of tests of biodegradability this product is not readily biodegradable.

(Directive 67/548/EEC Annex V, C.4.C.)

### 12.3 Bioaccumulative potential

Bioaccumulation is unlikely.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

##### Contaminated packaging

Dispose of as unused product

### 14. TRANSPORT INFORMATION

#### 14.1 UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

#### 14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dopamine hydrochloride)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dopamine hydrochloride)

IATA: Environmentally hazardous substance, solid, n.o.s. (Dopamine hydrochloride)

#### 14.3 Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

#### 14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

#### 14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

#### 14.6 Special precautions for user

No data available

### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

#### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

### 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!