

**SAFETY DATA SHEET**

Create Date: 2020-12-10

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**SECTION 1: COMPANY AND PRODUCT INFORMATION**

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**1.1 Product identifiers**

Product name : Tyramine HCl  
Product code : ZXB-09-288  
CAS number : 60-19-5  
Synonyms : Tyrosaminehydrochloride  
4-(2-Aminoethyl)phenolhydrochloride  
4-Hydroxyphenethylaminehydrochloride

**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**

Address : Hinter den Gärten 56  
89173 Lonsee  
Germany  
Email : info@zellx.de  
Phone : +49(0)731 55211521  
Fax : +49(0)731 55211719

**1.4 Emergency telephone number**

Emergency phone : +49(0)731 55211521

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**SECTION 2: HAZARDS IDENTIFICATION**

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**2.1 Classification of substance or mixture**

Skin corrosion/irritation Category 2.  
Serious eye damage/eye irritation Category 2A.  
Specific target organ toxicity (single exposure) Category 3.

**2.2 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Skin irritation (Category 2), H315.  
Eye irritation (Category 2A), H319.  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335.

**2.3 Label elements and precautionary statements**

Pictogram : 

Signal word : Warning

Hazard statement(s) : H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

Precautionary statement(s) : P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ eye protection/ face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**2.4 Hazards not otherwise classified (HNOC) or not covered by GHS**

None

**2.5 NFPA Rating**

Health hazard : 2

Fire hazard : 0

Reactivity hazard : 0

**2.6 HMIS Rating**

Health hazard : 2

Chronic health hazard : 0

Reactivity hazard : 0

Flammability : 0

Physical hazard : 0

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Substance	CAS#	EC#	Concentration
4-Hydroxyphenethylammonium chloride M.F: C <sub>8</sub> H <sub>11</sub> NO · HCl M.W: 173.64 g/mol	60-19-5	200-462-5	>98%

**3.2 Hazardous components & classification**

Skin Irrit. 2  
Eye Irrit. 2A  
STOT SE 3  
H315, H319,H335

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

**In case of inhalation**

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**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**In case of ingestion**

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**

Not available

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

Not available

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**SECTION 5: FIREFIGHTING MEASURES**

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**5.1 Suitable extinguishing media**

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

**5.2 Unsuitable extinguishing media**

Not available

**5.3 Special hazards arising from the substance**

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

**5.4 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**For personal protection see section 8**

**6.2 Environmental precautions**

Do not let product enter drains.

**6.3 Methods and material for containment and cleaning up**

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

**For proper disposal see section 13**

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**SECTION 7: HANDLING AND STORAGE**

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**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. Normal measures for preventive fire protection.

**For precautions see section 2**

**7.2 Conditions for safe storage, including any incompatibilities**

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

Incompatible materials : Strong oxidizing agents, Acid chlorides, Acid anhydrides

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Engineering controls

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

### 8.3 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 : Impervious clothing, 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 : Do not let product enter drains.
- General hygiene considerations : When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

- a) Appearance : Form: crystalline Colour: beige
- b) Physical states : Solid
- c) Odor : Not available
- d) Odor threshold : Not available
- e) Melting point : 271 - 274 °C (520 - 525 °F) - lit.
- f) Boiling point range : Not available
- g) pH : Not available
- h) Density : Not available
- i) Flash point : Not available

- j) Evaporation rate : Not available  
k) Flammability : Not available  
l) Upper/lower flammability or explosive limits: : Not available  
m) Vapor pressure : Not available  
n) Vapor density : Not available  
o) Relative density : Not available  
p) Water solubility : Not available  
q) Partition coefficient:n-octanol/water : Not available  
r) Autoignition temperature : Not available  
s) Decomposition temperature : Not available  
t) Kinematic viscosity : Not available  
u) Explosive properties : Not available  
v) Oxidizing properties : Not available  
w) Solubility in other solvents : Not available  
x) Surface tension : Not available

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## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

Not available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Stability note(s)

Not available

### 10.4 Polymerization

Not available

### 10.5 Possibility of hazardous reactions

Not available

### 10.6 Incompatible materials

Strong oxidizing agents, Acid chlorides, Acid anhydrides

### 10.7 Hazardous decomposition products

Not available

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### 11.1 Acute toxicity

LD50 Oral : Not available

LD50 Dermal : Not available

LC50 Inhalation : Not available

### 11.2 Skin corrosion/irritation

Not available

### **11.3 Serious eye damage/eye irritation**

Not available

### **11.4 Respiratory or skin sensitization**

Not available

### **11.5 Germ cell mutagenicity**

Not available

### **11.6 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.

ACGIH : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### **11.7 Reproductive toxicity**

Not available

### **11.8 Specific target organ toxicity – single exposure**

Not available

### **11.9 Specific target organ toxicity – repeated exposure**

Not available

### **11.10 Aspiration hazard**

Not available

### **11.11 Additional Information**

Not available

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## **SECTION 12: ECOLOGICAL INFORMATION**

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### **12.1 Toxicity**

Not available

### **12.2 Aquatic toxicity**

Not available

### **12.3 Persistence and degradability**

Not available

### **12.4 Bioaccumulative potential**

Not available

### **12.5 Mobility in soil**

Not available

### **12.6 Results of PBT and vPvB assessment**

Not available

## 12.7 Other adverse effect

Not available

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## SECTION 13: DISPOSAL CONSIDERATIONS

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### 13.1 Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

### 13.2 Packaging

Dispose of as unused product.

### 13.3 Recommendation

Not available

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## SECTION 14: TRANSPORTATION INFORMATION

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### 14.1 DOT (US)

Not dangerous goods

### 14.2 IMDG

Not dangerous goods

### 14.3 IATA

Not dangerous goods

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## SECTION 15: REGULATORY INFORMATION

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### 15.1 SARA

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

### 15.2 Clean water act (CWA)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### 15.3 Right to know components

Massachusetts : No components are subject to the Massachusetts Right to Know Act.

Pennsylvania : 4-Hydroxyphenethylammonium chloride CAS-No-60-19-5

New Jersey : 4-Hydroxyphenethylammonium chloride CAS-No-60-19-5

California proposition 65 components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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## SECTION 16: OTHER INFORMATION

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### 16.1 Disclaimer

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### 16.2 Preparation Information

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