# Safety Data Sheet

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

### 1.1 Product identifiers

| | |
|---|---|
| Product Name: | Noradrenaline bitartrate |
| Catalog Number: | 5169 |
| CAS Number: | 51-40-1 |
| IUPAC Name: | 4-[(1*R*)-2-Amino-1-hydroxyethyl]-1,2-benzenediol (L-(+))-bitartrate salt |

### 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: | Tocris Bioscience | Telephone: | + 44 (0)117 916-3333 |
| | The Watkins Building, | Fax: | + 44 (0)117 916-3344 |
| | Atlantic Road, | Internet: | www.tocris.com |
| | Bristol, BS11 9QD, UK | E-mail address: | info@bio-techne.com |

### 1.4 Emergency Telephone number

For chemical emergency spill, leak, fire, exposure, or accident call CHEMTREC day or night:
Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [GHS/CLP]**

Acute Toxicity, oral - Category 2
Acute Toxicity, dermal - Category 2
Acute Toxicity, inhalation - Category 2
Reproductive Toxicity - Category 1B

### 2.2 Label elements

**Labeling according to Regulation (EC) No 1272/2008 [CLP]**

Pictogram(s):

Signal word: Danger

Hazard statement(s):

| | |
|---|---|
| H300 | Fatal if swallowed |
| H310 | Fatal in contact with skin |
| H330 | Fatal if inhaled |
| H360 | May damage fertility or the unborn child |

Precautionary statement(s):

| | |
|---|---|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray |
| P262 | Do not get in eyes, on skin, or on clothing |
| P264 | Wash hands thoroughly after handling |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
| P284 | Wear respiratory protection |
| P301+310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician |
| P302+350 | IF ON SKIN: Gently wash with soap and water |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing |
| P308+313 | If exposed or concerned: Get medical advice/attention |

### 2.3 Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| | | | |
|---|---|---|---|
| Product Name: | Noradrenaline bitartrate | | |
| Synonyms: | Norepinephrine | | |
| Formula: | $C_8H_{11}NO_3.C_4H_6O_6$ | Molecular Weight: | 319.26 |
| CAS Number: | 51-40-1 | | |

## 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 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

In combustion, may emit toxic fumes.

### 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 adequate 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

Cover spillage with suitable absorbent material. Sweep up material and place in an appropriate container. 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 +4°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**

**Eye/face protection**
Use appropriate safety glasses.

**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**
If risk assessment indicates necessary, use a suitable respirator.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

| | | | |
|---|---|---|---|
| Appearance | White solid | Vapor pressure | No data available |
| Odor | No data available | Vapor density | No data available |
| Odor threshold | No data available | Relative density | No data available |
| pH | No data available | Solubility(ies) | Soluble to 100 mM in water and to 100 mM in DMSO |
| Melting / freezing point | No data available | Partition coefficient | No data available |
| Boiling point / range | No data available | Auto-ignition temperature | No data available |
| Flash point | No data available | Decomposition temperature | No data available |
| Evaporation rate | No data available | Viscosity | No data available |
| Flammability (solid, gas) | No data available | Explosive properties | No data available |
| Upper / lower flammability or explosive limits | No data available | Oxidising properties | 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, moisture.

### 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

### 10.6 Hazardous decomposition products

In combustion may emit toxic fumes. No known decomposition information.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute Toxicity**
No data available

**Skin corrosion/irritation**
Classified based on available data

**Serious eye damage/irritation**
Classified based on available data

**Respiratory or skin sensitization**
Classified based on available data

**Germ cell mutagenicity**
Classified based on available data

**Carcinogenicity**
Classified based on available data

**Reproductive toxicity**
Classified based on available data

**Specific target organ toxicity - single exposure**
Classified based on available data

**Specific target organ toxicity - repeated exposure**
Classified based on available data

**Aspiration hazard**
Classified 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: No known symptoms.

**Additional Information**
RTECS No: DN6750000
Exposure may cause irritaiton of 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**
No data available

**12.2 Persistence and degradability**
No data available

**12.3 Bioaccumlative potential**
No data available

**12.4 Mobility in soil**
No data available

**12.5 Results of PBT and vPvB assessment**
No data available

**12.6 Other adverse effects**
No data available

## 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**
UN2811

**14.2 UN proper shipping name**
Toxic Solid, Organic, N.O.S. (Noradrenaline bitartrate)

**14.3 Transport hazard class(es)**
6.1

**14.4 Packaging group**
II

**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**
No data available

**California Proposition 65**
Not applicable

**15.2 Chemical safety assessment**

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

## 16. OTHER INFORMATION

**SDS Revision Details**

V2.1 H360 added upon review of available data and ECHA classification Sep 2nd 2020

**Further Information**

Copyright © 2025 Tocris Bioscience. 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