

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

Product name : (S)-(+)-Norepinephrine L-bitartrate

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

According to Regulation (EC) No1272/2008

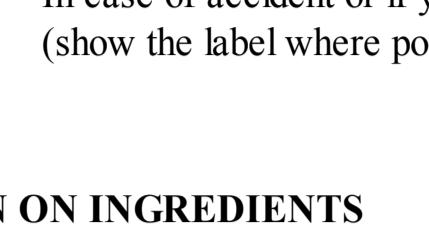
Acute toxicity, Oral (Category 4)

According to European Directive 67/548/EEC as amended.

Toxic if swallowed.

### Label elements

Pictogram



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed.

Precautionary statement(s)

none

Hazard symbol(s)

T

Toxic

R-phrase(s)

R25

Toxic if swallowed.

S-phrase(s)

S36/37

Wear suitable protective clothing and gloves.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : D-Noradrenaline hydrogen L-tartrate  
(+)- $\alpha$ -(Aminomethyl)-3,4-dihydroxybenzyl alcohol (+)-tartrate (1:1)  
D-Norepinephrine D-bitartrate  
D-Noradrenaline L-bitartrate

Formula : C8H11NO3 · C4H6O6

Molecular Weight : 319,26 g/mol

CAS-No.	EC-No.	Classification	Concentration
(S)- $\beta$ ,3,4 -Trihydroxyphenethylammonium [R-(R*,R*)]-hydrogen tartrate 636-88-4	211-268-5	Acute Tox. 4; H302 T, R25	-

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

## 4. 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

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

### If swallowed

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

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

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

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Evacuate personnel to safe areas.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up

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

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Conditions for safe storage

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

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

#### Eye protection

Face shield and safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form : powder

Colour : white

### Safety data

pH : no data available

Melting point : 166 °C - dec.

Boiling point : no data available

Flash point : no data available

Ignition temperature : no data available

Lower explosion limit : no data available

Upper explosion limit : no data available

Water solubility : no data available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

acids, Bases, Oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### 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

May cause reproductive disorders. Exposure during pregnancy can provoke uterine contractions which can result in fetal asphyxia.

### Specific target organ toxicity - single exposure

no data available

### Specific target organ toxicity - repeated exposure

no data available

### Apiration hazard

no data available

### Potential health effects

#### Inhalation

Toxic if inhaled. May cause respiratory tract irritation.

#### Skin

May be harmful if absorbed through skin. May cause skin irritation.

#### Eyes

May cause eye irritation.

### Symptoms of Exposure

Sweating, Vomiting, Headache, Palpitation, Cough, Shortness of breath

### Additional Information

RTECS: Not available

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste

disposal service equipped with an afterburner or incinerator and scrubber. Disposal in a chemical incinerator equipped with an afterburner and scrubber.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### ADR/RID

UN-Number: 2811 Class: 6.1

Packing group: III

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. ((S)- $\beta$ ,3,4 -Trihydroxyphenethylammonium [R-(R\*,R\*)]-hydrogen tartrate)

(R\*,R\*)-hydrogen tartrate

Marine pollutant: No

UN-Number: 2811 Class: 6.1

Packing group: III

Proper shipping name: Toxic solid, organic, n.o.s. ((S)- $\beta$ ,3,4 -Trihydroxyphenethylammonium [R-(R\*,R\*)]-hydrogen tartrate)

(R\*,R\*)-hydrogen tartrate

## 15. REGULATORY INFORMATION

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

## 16. OTHER INFORMATION

### Text of H-code(s) and R-phrase(s) mentioned in Section 3

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