

**Material Safety Data Sheet**

Version 4.0  
Revision Date 06/28/2010  
Print Date 04/26/2011

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : (-)-Isoproterenol (+)-bitartrate salt  
Product Number : I2760  
Brand : Sigma  
Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA  
Telephone : +1 800-325-5832  
Fax : +1 800-325-5052  
Emergency Phone # : (314) 776-6555

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

**OSHA Hazards**  
Target Organ Effect, Irritant

**Target Organs**

Heart, Lungs, Nerves., Kidney, Cardiovascular system., Gastrointestinal tract, Liver

**GHS Label elements, including 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/vapours/spray.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**HMIS Classification**

Health hazard: 2  
Chronic Health Hazard: \*  
Flammability: 0  
Physical hazards: 0

**NFPA Rating**

Health hazard: 2  
Fire: 0  
Reactivity Hazard: 0

**Potential Health Effects**

**Inhalation** : May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin** : May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes** : Causes eye irritation.  
**Ingestion** : May be harmful if swallowed.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : (-)-Isoprenaline(+)-bitartrate salt  
Formula : C<sub>11</sub>H<sub>17</sub>NO<sub>3</sub> · C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>

CAS-No.	EC-No.	Index-No.	Concentration
<b>L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate</b>			
54750-10-6	259-322-7	-	97.5 %
<b>2-Propanol</b>			
67-63-0	200-661-7	603-117-00-0	2.5 %

**4. FIRST AID MEASURES**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**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 vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**

Do not let product enter drains.

**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.

**7. HANDLING AND STORAGE**

**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.

**Conditions for safe storage**

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

Light sensitive. Keep in a dry place.

8/600003

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**Health**

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
2-Propanol	67-63-0	TWA	200 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.				
		STEL	400 ppm	2007-01-01	USA. ACGIH Threshold Limit Values (TLV)
	Eye & Upper Respiratory Tract irritation Central Nervous System impairment Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.				
		TWA	400 ppm 980 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	500 ppm 1,225 mg/m3	1989-01-19	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	400 ppm 980 mg/m3	1997-08-04	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
The value in mg/m3 is approximate.					

### Personal protective equipment

#### 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).

#### Hand 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.

#### Eye 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 and 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.

#### Hygiene measures

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form powder

### Safety data

pH	no data available
Melting point	no data available
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

no data available

### Hazardous decomposition products

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

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### Skin corrosion/irritation

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### Serious eye damage/eye irritation

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### Respiratory or skin sensitization

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### Germ cell mutagenicity

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### 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.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)

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.

### Reproductive toxicity

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### Specific target organ toxicity - single exposure (GHS)

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

### Specific target organ toxicity - repeated exposure (GHS)

no data available

**Aspiration hazard**

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

**Additional information****12. ECOLOGICAL INFORMATION****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available (L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate)

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

**13. DISPOSAL CONSIDERATIONS****Product**

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

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**15. REGULATORY INFORMATION****OSHA Hazards**

Target Organ Effect, Irritant

**DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-	CAS-No. 54750-10-6
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Sigma - 12760  
Delivery 0838553602-000030 Purchase Order CC/Forte

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bitartrate

**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**

2-Propanol

CAS-No.  
67-63-0Revision Date  
1987-01-01**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

2-Propanol

CAS-No.  
67-63-0Revision Date  
1987-01-01**Pennsylvania Right To Know Components**

2-Propanol

L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate

CAS-No.  
67-63-0

54750-10-6

Revision Date  
1987-01-01**New Jersey Right To Know Components**

2-Propanol

L-1,2-dihydroxy-4-((1-hydroxy-2-(isopropyl)amino)ethyl)benzene D-bitartrate

CAS-No.  
67-63-0

54750-10-6

Revision Date  
1987-01-01**California Prop. 65 Components**

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

**16. OTHER INFORMATION****Further information**

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