

Preparation / Revision Date 8/4/2011

Expiry Date 8/2/2014

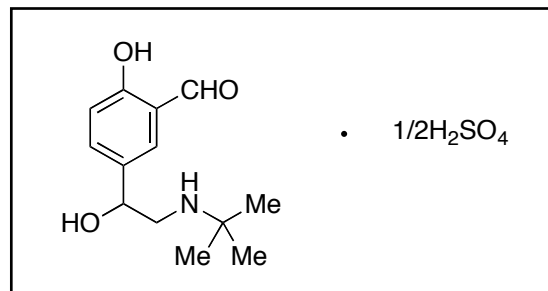
## 1. PRODUCT AND COMPANY IDENTIFICATION

**Chemical Name** Albuterol Aldehyde Hemisulfate

**Catalogue #** A514495

**Company** Toronto Research Chemicals  
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Toronto, ON M3J 2J8  
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## 2. HAZARDS IDENTIFICATION

### WHMIS Classification

D2B Toxic Material Causing Other Toxic Effects

Reproductive hazard

### HMIS Classification

**Health hazard:** 1  
**Chronic Health Hazard:** \*  
**Flammability:** 0  
**Physical hazards:** 0

### Potential Health Effects

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

### GHS Classification

Acute toxicity, Oral (Category 4)  
Acute toxicity, Dermal (Category 4)  
Reproductive toxicity (Category 2)

### GHS Label elements, including precautionary statements

Signal word Danger

### Hazard statements

H303 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H361 Suspected of damaging fertility or the unborn child.

### Precautionary statements

P201 Obtain special instructions before use.  
P281 Use personal protective equipment as required.  
P301/P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P302/P352 IF ON SKIN: Wash with plenty of soap and water.  
P308/P313 IF exposed or concerned: Get medical advice/ attention.

### GHS Label Pictogram





### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Molecular Formula:**  $C_{13}H_{19}NO_3 \cdot 1/2H_2SO_4$

**Molecular Weight:** 286.33

**CAS Registry #:**

**EC#:** 5-[2-[(1,1-Dimethylethyl)amino]-1-hydroxyethyl]-2-hydroxybenzaldehyde Hemisulfate;

**Synonyms:**

### 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 or aerosol formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). 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 or aerosols. Provide appropriate exhaust ventilation at places where dust/aerosol is formed. Normal measures for preventative fire protection.

### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store at -20°C under inert atmosphere.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### 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.

#### Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Solid

### Safety data

pH	N/A	Melting point	N/A
Boiling point	N/A	Flash point	N/A
Ignition temperature	N/A	Lower explosion limit	N/A
Upper explosion limit	N/A	Vapour pressure	N/A
Density	N/A	Water solubility	N/A

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: carbon oxides, hydrogen chloride, nitrogen oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available

### Irritation and corrosion

no data available

### Sensitization

no data available

### Reproductive toxicity/Teratogen

Possible human reproductive toxicant.

### Additional Information

RTECS: not listed

**Carcinogenicity**

IARC: To the best of our knowledge, this compound has not been identified as a possible or potential human carcinogen by IARC.

**Potential health effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin** Harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Ingestion** Harmful if swallowed.

**Signs and Symptoms of Exposure**

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

**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**

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****DSL Status**

Product is not on the Canadian DSL or NDSL list.

**WHMIS Classification**

D2B Toxic Material Causing Other Toxic Effects Reproductive hazard

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

Copyright 2010 Toronto Research Chemicals Inc. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is not to be deemed as all-inclusive and is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.