



# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Name :** HALOTHANE®

**Address/Phone No. :** AstraZeneca

PO Box 15437  
Wilmington, Delaware 19850-5437  
Phone (24 hr.) Medical : (800) 236-9933  
Chemtec : (800) 424-9300

### Alternative Names

Halothane Ph.Eur.  
(RS)-2-Bromo-2-chloro-1,1,1-trifluoroethane

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical Composition

Stabilised with thymol 0.01% w/w.

CAS No. : 000151-67-7

Use : anaesthetic

### HAZARDOUS INGREDIENT(S) CAS No.

Halothane	000151-67-7
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## 3. HAZARDS IDENTIFICATION

Form : clear volatile liquid

Color : colorless

Odor : pleasant , chloroform

The vapor has anesthetic properties and when inhaled at concentrations above the occupational exposure limit it may cause headache, fatigue, dizziness, incoordination and loss of consciousness.

## 4. FIRST AID MEASURES

- Inhalation : Remove patient from exposure, keep warm and at rest. Oxygen may be beneficial if breathing is laboured or patient is cyanotic. Apply artificial respiration if breathing has ceased or shows signs of failing. Obtain medical attention.
- Skin Contact : Remove contaminated clothing. Wash skin with soap and water. If symptoms (irritation or blistering) occur obtain medical attention.
- Eye Contact : Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain medical attention.
- Ingestion : Wash out mouth with water. Obtain immediate medical attention.

### **Note to Physicians**

Inhalation: Bradycardia and hypotension may be controlled by the intravenous injection of 200 to 300 micrograms of atropine. It is common practice to give atropine as a premedicant to prevent or limit bradycardia and hypotension. Methoxamine has been given in severe hypotension. Malignant hyperpyrexia responds to treatment with dantrolene sodium. Ingestion: Symptomatic treatment and supportive therapy as indicated.

## **5. FIRE FIGHTING MEASURES**

### **Flammable Properties**

Flash Point (Deg C/Deg F) : No data.

In concentrations usually used: Non-flammable. Non-explosive. Thermal decomposition will evolve toxic and irritant vapors.

## **6. ACCIDENTAL RELEASE MEASURES**

Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Adsorb spillages onto sand, earth or any suitable adsorbent material. (eg proprietary chemical absorbent mat). Transfer to a container for disposal.

## **7. HANDLING AND STORAGE**

### **7.1 HANDLING**

Do not breathe vapor. Avoid contact with skin and eyes. Use only in well ventilated areas. Atmospheric levels should be controlled to the lowest practicable level and in compliance with the occupational exposure limit.

### **7.2 STORAGE**

Keep container tightly closed. Protect from light. Keep only in the original container in a cool, well ventilated place.

Storage Temperature : below 25 Deg C

Storage Life : 5 year(s)

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls**

No ACGIH TLV or OSHA PEL assigned.

HAZARDOUS INGREDIENT(S)	TWA		STEL /CEILING (C)		TLV
	ppm	mg/m3	ppm	mg/m3	
Halothane	50	404	-	-	

**Personal Protective Equipment**

Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Wear suitable gloves and eye/face protection.

- Respirators : Use NIOSH approved respirator for organic vapors, dusts and mists with a TLV greater than 0.05 mg/m3.
- Protective Clothing : Impervious gloves and apron.
- Eye Protection : Chemical tight goggles.
- Other Protective Equipment : Eyewash station and safety shower in work area.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- Form : clear volatile liquid
- Color : colorless
- Odor : pleasant , chloroform
- Boiling Point (Deg C/Deg F) : 49-51/120-124
- Vapor Pressure (mm Hg) : 243 torr at 20 Deg C
- Density (g/ml) : 1.872 - 1.877 at 20 Deg C
- Solubility (Water) : slightly soluble
- Solubility (Other) : miscible with chloroform ethanol ether trichloroethylene

**10. STABILITY AND REACTIVITY**

Hazardous Reactions : Can react with metals in presence of moisture.

**11. TOXICOLOGICAL INFORMATION**

- Inhalation : The vapor has anesthetic properties and when inhaled at concentrations above the occupational exposure limit it may cause headache, fatigue, dizziness, incoordination and loss of consciousness.
- Skin Contact : Slight/mild irritant to rabbit skin. May cause skin irritation in sensitive individuals.
- Eye Contact : Practically non-irritant to rat eyes. Unlikely to cause eye irritation in man.
- Ingestion : The swallowing of small splashes is unlikely to cause any adverse effects. Larger doses may produce effects similar to inhalation and may prove fatal. Oral Median Lethal Dose 5.69 - 7.05g/kg (rat).

Long Term Exposure : Repeated exposure by inhalation to levels well above the occupational exposure limit may produce adverse effects on the liver. Studies in animals have shown that high exposures produce teratogenic effects. None of these effects are likely to occur in humans, provided exposure is maintained at or below the occupational exposure limit.

## 12. ECOLOGICAL INFORMATION

### Environmental Fate and Distribution

Liquid with high volatility.

### Toxicity

EC50 (bacteria, anaerobic) <100mg/l Toxic to rainbow trout at <90mg/l Toxic to daphina magna at <100mg/l

## 13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with local, state or national legislation. Incinerate under approved controlled conditions, using incinerators suitable for the disposal of noxious chemical waste. For complete destruction of Halothane incineration at temperatures of 1250 Deg C for at least 2 seconds is required.

## 14. TRANSPORT INFORMATION

UN No. : 3334  
UN Packing Group : None assigned  
AIR : 9 (AVIATION REGULATED LIQUID, N.O.S.(HALOTHANE))  
ICAO/IATA Class -primary  
SEA : Not restricted.

IMDG Class -primary

## 15. REGULATORY INFORMATION

TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710: This product is a drug and is exempt from TSCA regulation. CERCLA and SARA Regulations (40 CFR 355, 370 and 372): CERCLA, CHLORINATED ETHANES Hazardous substance. Other Determined Regulations: California Proposition 65: WARNING. This product is a chemical known to the state of California to cause birth defects or reproductive harm.

## 16. OTHER INFORMATION

This Material Safety Data Sheet was prepared in accordance with ANSI Standard Z400.1 1993, and modified 1998.

The following sections contain revisions or new statements: 6,7

## GLOSSARY

COM : The company aims to control exposure in its workplace to this limit

This is an in-house standard for the active ingredient handled during manufacture

TLV : The company aims to control exposure in its workplace to the ACGIH limit

Sk : Can be absorbed through skin

Sen : Capable of causing respiratory sensitization

The information herein is given in good faith but no warranty, expressed or implied, is made.

**( Revision: 08 Date: 1299)**

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**US01**

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