



Material Safety Data Sheet: Aerrane[®]

Manufacturer Baxter Healthcare Corporation
One Baxter Parkway
Deerfield, IL 60015-4633

Telephone

Emergency Contact
Prosar: USA (888)990-0996
Outside USA (615)917-6114
Chemtec: (800)424-9300

Section I: Identification

Trade/Common Names Aerrane[®]; isoflurane
Chemical Names 1-chloro-2,2,2-trifluoroethyl difluoromethyl ether
Chemical Family Halogenated ether
DOT Designation Regulated, Class 9 - Miscellaneous Hazardous Materials
IATA Designation Regulated, Class 9 - Miscellaneous Hazards
Proper Shipping Name Aviation regulated liquid, n.o.s. (isoflurane)
UN Number UN3334
Label Miscellaneous

NFPA Hazard Ratings

Health	Fire	Reactivity
2	1	0

Section II: Hazardous Ingredients

Component (CAS Number)	ACGIH TLV	OSHA PEL	OTHER LIMITS	NOTES
Isoflurane (26675-46-7) 100%	N/A	N/A	C 2 ppm ^a [60 minutes] 2 ppm ^b	NONE

^aNIOSH recommended exposure limit for halogenated anesthetic waste gas.

^bCalifornia Exposure Limits - PEL

KEY TO NOTES:

- (1) (Suspect) carcinogen-OSHA, ACGIH, NTP or IARC
- (2) SARA Title III Section 313 chemical
- (3) SARA Title III Extremely Hazardous Substance
- (4) CERCLA Hazardous Substance and Reportable Quantities
- (5) RCRA Hazardous Waste

NONE - none of the above applies to this component

Section III: Physical Data

Boiling Point	48.5 °C	% Volatile (by weight)	100
Vapor Pressure (mm Hg)	261.8 @ 22 °C	Evaporation Rate (diethyl ether = 1)	Slower
Vapor Density (air = 1)	Heavier than air	pH	N/A
Specific Gravity (water = 1)	1.50 @ 25 °C	Solubility in Water	Negligible
Appearance and Odor	Clear, colorless liquid with a mild, ethereal odor.		

Section IV: Fire and Explosion Hazard Data

Flash Point	>200 °F (93 °C)	Method	Closed Cup
LEL	N/A	UEL	N/A
Extinguishing Media	Foam, dry chemical, or CO ₂		
Special Fire Fighting Procedures	None		
Unusual Fire/Explosion Hazards	Toxic gases may be released (see decomposition products)		

Section V: Reactivity Data

Stable Yes

Incompatibility (materials to avoid) Avoid contact with peroxides

Hazardous Decomposition Products Phosgene, hydrogen chloride, hydrogen fluoride. Hazardous polymerization will not occur.



Material Safety Data Sheet: Aerrane[®]

Section VI: Health Hazard Data

Effects of Overexposure

Eyes	Acute: May cause irritation and redness. Chronic: None known.
Skin	Acute: May cause dryness, irritation. Chronic: None known.
Inhalation	Acute: May cause irritation of the mouth and throat. Overexposure can lead to headaches, dizziness/drowsiness, unconsciousness, and death. Chronic: None known.
Ingestion	Unlikely under normal conditions of handling or usage. Acute: May lead to unconsciousness or death.

Toxicity Data

LD ₅₀ oral rat	4770 µL/kg	LC ₅₀ inhalation rat	15300 ppm/3 H
LD ₅₀ oral mouse	5080 µL/kg	LC ₅₀ inhalation mouse	16800 ppm/3 H

Emergency First Aid Procedures

Eyes	Flush with copious amounts of water for at least 15 minutes. Seek medical attention if irritation, pain, swelling, tearing or photo sensitivity persist after 15 minutes of flushing.
Skin	Remove contaminated clothing and wash skin with large amounts of soap and water. Seek medical attention if area is irritated or painful. Isoflurane can be absorbed through intact skin, carefully observe patient for systemic signs or symptoms.
Inhalation	Remove person to fresh air. Administer artificial respiration or CPR as needed. Seek medical attention for severe dizziness or unconsciousness.
Ingestion	Do not induce vomiting. Contact Poison Control Center for instructions. Administer artificial respiration or CPR as needed. Seek medical attention.

Section VII: Spill or Leak Procedures

Steps to be taken if material is released or spilled	Ventilate area of spill or leak. Absorb spill using sorbant for organic chemicals (vermiculite, spill pillows, etc.). Collect in sealed containers for disposal. Wear protective equipment as indicated below.
Waste Disposal Method	Dispose of in accordance with country, regional, federal, state, and local regulations.

Section VIII: Personal Protection

Respiratory Protection	Perform exposure monitoring for this product and its components to ensure that employees are not exposed to levels greater than applicable regulatory limits. If exposure levels exceed regulatory limits, implement a respiratory protection program including respiratory protection that is in compliance with OSHA 29 CFR 1910.134 (in the US) or equivalent regulation in other regions. Fire fighting requires the use of a self-contained breathing apparatus with full face piece and positive pressure mode.
Ventilation	Local exhaust is recommended where this product is in use.
Skin	Latex, rubber, or other impervious gloves recommended.
Eyes	Eye protection recommended. Eye wash facilities should be provided.
Other	None.

Section IX: Special Precautions

Handling and Storage	Store at controlled room temperature. Handle and store bottles so as to avoid breakage.
Other	None

To the best of our knowledge, the information contained herein is accurate. However, neither Baxter Healthcare Corporation nor any of its divisions or subsidiaries assumes any legal responsibility for use or reliance upon this information. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

Replaces Information Dated: January 1994

Prepared By: J. Glosson, CRTS, Baxter Healthcare Corporation

Date Issued: February 1999