

MATERIAL SAFETY DATA SHEET

IDENTITY: SEVOFLURANE  
Fluoromethyl 2,2,2-trifluoro-1-(trifluoromethyl) ethyl ether

SECTION I: MANUFACTURER

HALOCARBON PRODUCTS CORP      Emergency Number:      (803) 278-3504  
P.O. Box 661                              Customer Service & Sales: (201) 262 8899  
River Edge, NJ 07661

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SECTION II: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

	CAS	OSHA	ACGIH	Other
Hazardous Components No.	PEL	TVA	Limits	Internal Guide
Sevoflurane	28523-86-6	None	None	50 ppm
Fluoromethyl 2,2,2-trifluoro-1-(trifluoromethyl) ethyl ether			(8 hour TWA)	

OSHA HAZARD RATING:

This product contains the following toxic chemical(s) subject to Section 313 Title III reporting requirements (40 CFR Part 372).

NONE

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point : 58C                      Vapor Pressure: 245 mm Hg at 30C  
Melting Point : N/A                      Vapor Density(Air=1): 6.94  
Specific Gravity(H2O=1): 1.52      Solubility in Water : 0.01% v/v

Appearance and Odor: A non-pungent, clear, colorless liquid

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point/Method: Non-flammable      Autoignition Temp: Not determined  
Flammability Limits in Air - LEL: Not determined      UEL: Not determined

Extinguishing Media: Non-flammable. Use methods appropriate for surroundings.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin or eyes.

Unusual Fire and Explosion Hazards: Thermal decomposition products may be toxic and corrosive.

SECTION V - REACTIVITY DATA

Unstable  Conditions to Avoid: N/A  
Stable

Incompatibility (Materials to Avoid): Avoid contact with alkaline earth metals and strong bases.

Hazardous Combustion or Decomposition Products: Include toxic fumes of carbon dioxide, carbon monoxide, hydrogen fluoride and fluorophosgene.

Hazardous Polymerization  May Occur  Will Not Occur  
Conditions To Avoid: N/A

SECTION VI - HEALTH HAZARD DATA

Sevoflurane is used to produce anesthesia. Respiratory depression, hypotension, bradycardia, shivering, nausea and headache may accompany anesthesia. Target organs include the central nervous system, respiratory system, cardiovascular system and possibly the fetus.

Toxicity data for sevoflurane: Oral, rat, LD50: 10,800 mg/kg. Intra-peritoneal, rat, LD50: 6300 mg/kg. Inhalation, rat, LC50: 28,800 ppm, duration: 3 hrs.

Oral, mouse, LD50: 18,200 mg/kg. Intraperitoneal, mouse, LD50: 10,500 mg/kg. Inhalation, mouse, LC50: 28,300 ppm, duration: 3 hrs. Inhalation, monkeys, LC50: 68,000 ppm, duration: 3 hrs.

Mutation Data: Oral, rat, micronucleus test, oral, dosage 4 mmol/kg.

Reproductive Effects: Sevoflurane has been shown to have reproductive effects in rats. Large concentrations of sevoflurane have produced slight elevations in serum enzymes and produced maternal effects, fetal effect (decreased weight gain) and decreased reproductive performance in animals. (Only selected data from RTECS is presented here. See RTECS#KO0737000 for full data).

Primary routes of entry:  Inhalation  Skin  Eyes  Oral

Chronic Effects of Overexposure: Unknown

Carcinogenicity listing:  NTP  IARC  OSHA  
 Other

Exposure Limits/Toxicity: See also Section II

NIOSH: 2ppm/1 hr. Ceiling limit is the recommended exposure limit to waste anesthetic gas.

Internal: 50 ppm TWA (same TWA recommended by the ACGIH for Halothane, a similar inhalation anesthetic)

First Aid

Inhalation: Remove to fresh air, give artificial respiration if needed. Seek medical help.

Skin: Wash affected area immediately for 15 minutes. Remove contaminated clothing and shoes. See medical help if needed.

Eye: Flush eyes with plenty of water for at least 15 minutes. Get medical help if needed.

Oral: If swallowed get medical attention.

Medical Conditions Generally Aggravated by Exposure: Patients sensitive to other halogenated anesthetics. Cardiovascular or respiratory disease.

Other Health Hazards: No information available.

Continued

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