Baxter

Material Safety Data Sheet

MSDS Number: 1087151
Revision date: 09/16/2004
Print date: 09/16/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Number: 1087151
Product name: Forane (Isoflurane, USP)
Product code: NDC 10019-360-40, NDC 10019-360-60
Synonyms: Forane
Isoflurane
Ethane
Aerrane
2-CHLORO-2-(DIFLUOROMETHOXY)-1,1,1-TRIFLUORO- (9CI)
Chemical Family: Anesthetic
Product Type: Regulated Prescription Drug
Container Information: 100 and 250 ml bottles
Product Use: Pharmaceutical.

Supplier:
BAXTER HEALTHCARE CORPORATION
DEERFIELD, ILLINOIS 60015
(800) 422-9837 or (847) 948-4770

Emergency telephone number: PROSAR: USA (888) 990-0996 OUTSIDE USA (615)917-6114
CHEMTREC: USA (800) 424-9300 OUTSIDE USA (743)741-6089

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	UN Number:	Classification:
Forane (Isoflurane, USP) 26675-46-7	100	None	None

3. HAZARDS IDENTIFICATION

Emergency overview: CAUTION! Anesthetic Agent. Central Nervous System depression.

Principle routes of exposure: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Inhalation: Practically non-toxic by inhalation. Cardiovascular effects (may include fluctuations in heart rate, changes in blood pressure, chest pain). Respiratory effects (may include shortness of breath, bronchospasms, laryngospasms, respiratory depression). Gastrointestinal effects (may include nausea, upset stomach, loss of appetite). Nervous System effects (may include ataxia, tremor, disturbance of speech, lethargy, headache, dizziness).

Ingestion: Practically non-toxic if swallowed. No specific hazards other than therapeutic effects. See inhalation.

Skin contact: May cause skin irritation.

Eye contact: May cause eye irritation.

4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops.

Notes to physician: See patient package insert in shipping carton for complete information.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Use foam or all purpose dry chemicals to extinguish.
Special protective equipment for firefighters: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Specific methods: No information available
Flash point: Not determined
Autoignition temperature: Not available
Flammable limits in air-lower (%): Not available
Flammable limits in air-upper (%): Not available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).

Environmental precautions: No information available.

Methods for cleaning up: If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7. HANDLING AND STORAGE

Handling:
Technical measures/precautions: Wash thoroughly after handling.

Storage:
Technical measures/storage conditions: Keep container tightly closed. Keep in a dry, cool and well-ventilated place. Store between 15-30°C (59 to 86°F).

Incompatible products: No special restrictions on storage with other products.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Component	OSHA- Time Weighted Average:	OSHA- Short Term Exposure Limit:	OSHA- Ceiling Limits	ACGIH- Time Weighted Average:	ACGIH- Short Term Exposure Limit:	ACGIH- Ceiling Limit Value:
Forane (Isoflurane, USP) 26675-46-7	None	None	None	None	None	None

CEIL: 2 ppm

Engineering measures: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal protective equipment:

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 CFR1910.134 (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.

Hand protection: Use chemical resistant, impervious gloves.

Skin and body protection: Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits).

Eye protection: Safety glasses. Goggles, face shield, or other full-face protection if potential exists for direct exposure to aerosols or splashes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Aqueous solution
Color:	Clear, Colorless.
Odor:	Pungent. Ethereal. Musty.
pH:	Not applicable.
Molecular weight:	184.5 g/mole
Boiling point/range:	48.5°C (119.3°F)
Melting point/range:	Not available.
Density:	1.3002 g/cm3 at 20°C (68°F)
Vapor pressure:	238 mmHg at 20°C (68°F)
Evaporation rate:	Not available.
Solubility:	0.275% in water.
Partition coefficient (n-octanol/water):	Not available.
Viscosity:	Not available.
% Volatile by Volume:	100% (w/w)

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Polymerization: Not applicable

Hazardous decomposition products: Phosgene. Hydrogen fluoride. Hydrogen Chloride.

Materials to avoid: Peroxides.

11. TOXICOLOGICAL INFORMATION

Component	LD50s and LC50s
Forane (Isoflurane, USP) 26675-46-7	Oral LD50 Mouse = 5080 µL/kg Oral LD50 Rat = 4770 µL/kg Inhalation LC50 Rat = 15300 ppm Inhalation LC50 Mouse = 16800 ppm

Acute toxicity: Cardiovascular effects (may include fluctuations in heart rate, changes in blood pressure, chest pain). Respiratory effects (may include shortness of breath, bronchospasms, laryngospasms, respiratory depression).

Chronic toxicity: Target Organs: Nervous System. Heart. Liver.

Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Mutagenic effects: No data is available on the product itself.

Reproductive toxicity: No impairment to fertility based on animal data. May be fetotoxic at high doses based on animal data.

FDA Pregnancy Catagory C

12. ECOLOGICAL INFORMATION

Environmental properties:

Component	Ecotoxicity - Water Flea Data	Fish Species Ecotoxicity	Ecotoxicity - Freshwater Algae Data	Microtox Etoxicity Data
Forane (Isoflurane, USP) 26675-46-7	None.	None.	None.	None.

Ecotoxicity effects: No data available

Bioaccumulation: No data available

13. DISPOSAL CONSIDERATIONS

Waste Classification: Not regulated.

Waste from residues / unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

14. TRANSPORT INFORMATION

DOT:

DOT shipping name: Aviation regulated liquid n.o.s. (Isoflurane)
UN Number: UN3334
DOT Packing Group: None
DOT Hazard class: 9

TDG (Canada):

TDG Proper shipping name: Not Available.
TDG UN/NA Number: Not Available.
TDG Packing Group: Not Available.
TDG Hazard class: Not Available.

ADR/RID:

ADR Official Transport Name: None
ADR Proper shipping name: None
ADR UN/NA number: None
ADR Hazard Class: None

ICAO / IATA:

IATA Proper shipping name: Aviation regulated liquid n.o.s. (Isoflurane)
IATA UN NUMBER UN3334
IATA Primary Hazard 9
IATA Packing group: None
ICAO ERG Code: None

IMO / IMDG:

IMDG Proper Shipping Name: None
IMDG Hazard Class and Division: None
IMDG Packing Group: None
IMDG Subsidiary Risks: None

15. REGULATORY INFORMATION

U.S. Regulations:

TSCA Inventory List - The product is exempt from TSCA, it is FDA Regulated

OTHER REGULATIONS:

Japanese Inventory (ENCS) This product does not comply with JPENCS

Component	Weight %	RCRA Status:	CERCLA Reportable Quantity:	CERCLA/SARA - 302 Ext. haz. substances:	Listed as Sara 313 title III:
Forane (Isoflurane, USP)	100	Not Listed	Not Listed	Not Listed	Not Listed

STATE REGULATIONS:

Component	California Prop 65:	Minnesota Right-To - Know:	Florida Right-to-Know Reporting List:	Rhode Island Right-to-Know List:	Massachusetts Right-to-Know List:	Pennsylvania Right-to-Know:	New Jersey Right-to-Know:
Forane (Isoflurane, USP)	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	sn 1057

CANADIAN REGULATIONS:

Canada DSL Inventory List - This product does not comply with DSL

EU EINECS List - This product complies with EINECS

Risk Phrases:
NONE

Safety Phrases:
NONE

16. OTHER INFORMATION

This data sheet contains changes from the previous version in section(s)?:
New MSDS format.

Additional information:
Not Available.

Prepared by: Technology Resources, Baxter Healthcare Corporation

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End of safety data sheet: