

SAFETY DATA SHEETS

This SDS packet was issued with item:

078949581

N/A

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 04.24.2024

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SEVOFLURANE USP (RX) 250ML

SECTION 1: Identification

Product Identifier

Product Name: SEVOFLURANE USP (RX) 250ML

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

Product code: 78949581

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Inhalable anesthetic – (Prescription Drug to be Administered by Medical Professionals Only)

Uses Advised Against: Any use other than recommended above.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Supplier:

United States

Aspen Veterinary Resources, LTD.

3155 W. Heartland Drive

Liberty, MO 64068

1-800-792-1238

Emergency Telephone Number:

United States

CHEMTREC

Within USA and Canada: 1-800-424-9300 (24 hours)

Outside USA and Canada: +1-703-527-3887 (24 hours)

SECTION 2: Hazard(s) Identification

GHS Classification:

Skin irritation, category 2

Eye irritation, category 2A

Reproductive toxicity, category 2

Specific target organ toxicity - single exposure, category 3, narcotic effects

Label elements

Hazard Pictograms:



Signal Word: Warning

Hazard statements:

H315 Causes skin irritation

H319 Causes serious eye irritation

H361 Suspected of damaging fertility or the unborn child

H336 May cause drowsiness or dizziness

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Precautionary Statements:

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P264 Wash skin thoroughly for 15 minutes after handling
P280 Wear protective gloves, protective clothing and eye protection
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P271 Use only outdoors or in a well-ventilated area
P302+P352 IF ON SKIN: Wash with plenty of water and soap
P332+P313 If skin irritation occurs: Get medical advice or attention
P362 Take off contaminated clothing and wash it before reuse
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice or attention
P308+P313 If exposed or concerned: Get medical advice or attention
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P321 Specific treatment (see Sections 4-8 of this SDS and any supplemental information on the product label)
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P405 Store locked up
P403+P233 Store in a well-ventilated place. Keep container tightly closed
P501 Dispose of contents and container in accordance with local, regional, national, and international regulations

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
CAS Number: 28523-86-6	Sevoflurane	100

Additional Information: None

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Show this Safety Data Sheet to the doctor in attendance.

After Inhalation:

This product is as an inhalable anesthetic agent. If high concentrations are inhaled, immediately remove to fresh air. If not breathing, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

After Skin Contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or persist, seek medical advice/attention.

After Eye Contact:

Immediately rinse eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. If eye irritation develops or persists, seek medical advice/attention.

After Swallowing:

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If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

CAUTION! Anesthetic Agent. Overexposure by inhalation to the vapors may cause temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, or loss of consciousness. Concentrations of anesthetic in the air would have to reach approximately 2-3 % before personnel would be expected to experience significant dizziness. Gross overexposure (> 20%) may possibly alter the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation.

Inhalation may have cardiovascular, respiratory, gastrointestinal and nervous system effects. Cardiovascular symptoms include fluctuations in heart rate, changes in blood pressure and chest pain. Respiratory symptoms include shortness of breath, bronchospasms, laryngospasms and respiratory depression. Gastrointestinal symptoms include nausea, upset stomach and loss of appetite. Nervous system symptoms include ataxia, tremor, disturbance of speech, lethargy, headaches, dizziness and blurred vision.

Skin contact may result in redness, pain, burning and inflammation.

Eye contact may result in irritation, redness, pain, inflammation, itching, burning and tearing.

Delayed Symptoms and Effects:

Effects are dependent on exposure (dose, concentration, contact time).

Long term exposure may affect fertility. Symptoms include, but are not limited to: menstrual problems, altered sexual behavior/fertility/ and pregnancy outcome. Long term exposure may also affect development of the unborn child. Symptoms include, but are not limited to: intrauterine growth retardation, pre-term birth, birth defects and postnatal death.

Immediate Medical Attention and Special Treatment

Specific Treatment:

Overexposure via inhalation requires urgent medical treatment.

If large quantities are ingested, seek immediate medical attention.

Notes for the Doctor:

Treat symptomatically.

Due to possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be considered only as a last resort in life-threatening emergencies.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Use extinguishing media appropriate to surrounding fire conditions.

Unsuitable Extinguishing Media:

Not determined or not applicable.

Specific Hazards During Fire-Fighting:

Containers may rupture under fire conditions. Thermal decomposition may produce toxic fumes and gases, including hydrochloric and hydrofluoric acids.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-face piece operated in positive pressure mode.

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Special precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts. Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers. Avoid unnecessary run-off of extinguishing media which may cause pollution.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Small volumes of liquid anesthetic agents may readily evaporate at room temperatures and may dissipate before any clean up attempts are initiated. For large spills, provide adequate ventilation or evacuate area. Large quantities of anesthetic agents may cause sedative effects. Evacuate unnecessary personnel. Restrict personnel, not equipped with personal protective equipment (including respiratory protection) until clean-up is complete. Depending on effectiveness of local ventilation, an air purifying respirator with organic vapor cartridge can be used to protect against vapors. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Do not breathe mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

Methods and Material for Containment and Cleaning Up:

Stop leak if you can do it without risk. Contain and collect spillage with a sorbent designed for organic chemicals. Spill pillows, vermiculite and carbon-based sorbents are examples of suitable materials. Place recovered material in tightly closed, suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to Other Sections:

For personal protective equipment see Section 8. For disposal see Section 13.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Do not breathe mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

Conditions for Safe Storage, Including Any Incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10). Recommended Storage Temperature: 15 - 30°C (59 - 86°F)

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Sevoflurane	28523-86-6	8-Hour TWA: 50 ppm
NIOSH	Sevoflurane	28523-86-6	Ceiling Limit: 2 ppm ([60 min] halogenated waste anesthetic gas)

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Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

Personal Protection Equipment

Eye and Face Protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

Skin and Body Protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

Respiratory Protection:

When working with small quantities in a well ventilated area, respiratory protection may not be required. If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

General Hygienic Measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Clear, colorless liquid
Odor	Slight ethereal
Odor threshold	Not determined or not available.
pH	Neutral
Melting point/freezing point	32 - 77°F (0 - 25°C)
Initial boiling point/range	58.6 °C (137.5 °F) at 760 mm Hg
Flash point (closed cup)	Not determined or not available.
Evaporation rate	>1
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	157 mm Hg at 20°C (68.8°F), 197 mm Hg at 25°C (77°F), 317 mm Hg at 36°C (96.8°F)
Vapor density	6.94

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Density	>1
Relative density	1.5
Solubilities	Water: Slightly soluble
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other Information

Molecular weight	200.05 g/mol
% Volatile by Volume	100 WT%
Specific Gravity	1.5 (Water 1)

SECTION 10: Stability and Reactivity

Reactivity:

Not reactive under recommended handling and storage conditions.

Chemical Stability:

Stable under recommended handling and storage conditions.

Possibility of Hazardous Reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

Conditions to Avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

Incompatible Materials:

Peroxides

Hazardous Decomposition Products:

Irritating and/or toxic fumes under fire conditions. These products are halogenated compounds (hydrochloric and hydrofluoric acids may be liberated).

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Route	Result
Sevoflurane	inhalation	LC50 Rat: 28,800 ppmV (3 hr)

Skin Corrosion/Irritation

Assessment:

Causes skin irritation.

Product Data:

No data available.

Substance Data:

Name	Result
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Name	Result
Sevoflurane	Causes skin irritation.

Serious Eye Damage/Irritation

Assessment:

Causes serious eye irritation.

Product Data:

No data available.

Substance Data:

Name	Result
Sevoflurane	Causes serious eye irritation.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

Assessment:

Suspected of damaging fertility or the unborn child.

Product Data:

Not considered fetotoxic based on animal data. Epidemiological studies suggest higher than normal incidences of problem pregnancies (particularly spontaneous abortions) among exposed personnel.

FDA Pregnancy Category: B

Substance Data:

Name	Result
Sevoflurane	Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure)

Assessment:

May cause drowsiness or dizziness.

Product Data:

No data available.

Substance Data:

Name	Result
Sevoflurane	May cause dizziness or drowsiness.

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Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:

Skin contact, ingestion, inhalation, eye contact

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

See section 4 of this SDS.

Other Information:

No data available.

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data: No data available.

Persistence and Degradability

Product Data: No data available.

Substance Data: No data available.

Bioaccumulative Potential

Product Data: No data available.

Substance Data: No data available.

Mobility in Soil

Product Data: No data available.

Substance Data: No data available.

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies. Dispose of in accordance with all applicable local, regional, state and federal

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regulations.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Maritime Dangerous Goods (IMDG)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	3334
UN Proper Shipping Name	Aviation regulated liquid, n.o.s., (Sevoflurane)
UN Transport Hazard Class(es)	9
Packing Group	III
Environmental Hazards	None
Special Precautions for User	None
ERG Code	9A
Excepted Quantities	E1
Passenger and Cargo	450 L
Cargo Aircraft Only	450 L
Limited Quantity	30 kg



SECTION 15: Regulatory Information

United States Regulations

- Inventory Listing (TSCA): All ingredients are listed-active or exempt.
- Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.
- Export Notification under TSCA Section 12(b): None of the ingredients are listed.
- SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.
- SARA Section 313 Toxic Chemicals: None of the ingredients are listed.

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CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know: None of the ingredients are listed.

New Jersey Right to Know: None of the ingredients are listed.

New York Right to Know: None of the ingredients are listed.

Pennsylvania Right to Know: None of the ingredients are listed.

California Proposition 65: None of the ingredients are listed.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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End of Safety Data Sheet