

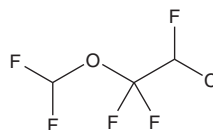
# PRODUCT INFORMATION



## Enflurane

Item No. 44218

**CAS Registry No.:** 13838-16-9  
**Formal Name:** 2-chloro-1-(difluoromethoxy)-1,1,2-trifluoro-ethane  
**Synonym:** NSC 115944  
**MF:** C<sub>3</sub>H<sub>2</sub>ClF<sub>5</sub>O  
**FW:** 184.5  
**Purity:** ≥98%  
**Supplied as:** A liquid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Enflurane is supplied as a liquid. A stock solution may be made by dissolving the enflurane in the solvent of choice, which should be purged with an inert gas. Enflurane is soluble (≥10 mg/ml) in ethanol and DMSO.

### Description

Enflurane is an anesthetic.<sup>1</sup> It selectively binds to voltage-gated sodium (Na<sub>v</sub>) channels and GABA<sub>A</sub> receptors over L-type calcium (Ca<sub>v</sub>1) channels (IC<sub>50</sub>s = 0.539, 0.946, and >3 mM, respectively). Enflurane protects against ischemia-induced decreases in left ventricular developed pressure in Langendorff isolated perfused rat hearts.<sup>2</sup> It decreases mean systolic blood pressure and induces muscle twitching in dogs.<sup>3</sup> Enflurane has proconvulsant activity in dogs during hypocapnia.<sup>4</sup> Formulations containing enflurane have previously been used as general anesthetics and analgesics during labor and delivery.

### References

1. Lingamaneni, R. and Hemmings, H.C., Jr. Differential interaction of anaesthetics and antiepileptic drugs with neuronal Na<sup>+</sup> channels, Ca<sup>2+</sup> channels, and GABA<sub>A</sub> receptors. *Br. J. Anaesth.* **90**(2), 199-211 (2003).
2. Schlack, W., Preckel, B., Stunneke, D., *et al.* Effects of halothane, enflurane, isoflurane, sevoflurane and desflurane on myocardial reperfusion injury in the isolated rat heart. *Br. J. Anaesth.* **81**(6), 913-919 (1998).
3. Klide, A.M. Cardiopulmonary effects of enflurane and isoflurane in the dog. *Am. J. Vet. Res.* **37**(2), 127-131 (1976).
4. Scheller, M.S., Nakakimura, K., Fleischer, J.E., *et al.* Cerebral effects of sevoflurane in the dog: Comparison with isoflurane and enflurane. *Br. J. Anaesth.* **65**(3), 388-392 (1990).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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