

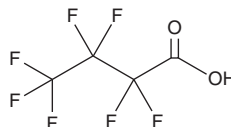
PRODUCT INFORMATION



Heptafluorobutyric Acid

Item No. 37234

CAS Registry No.: 375-22-4
Formal Name: 2,2,3,3,4,4,4-heptafluoro-butanoic acid
Synonyms: HFBA, Perfluorobutanoic Acid, Perfluorobutyric Acid, PFBA, NSC 820
MF: $C_4HF_7O_2$
FW: 214.0
Purity: $\geq 80\%$
Supplied as: A neat oil
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

Heptafluorobutyric acid is supplied as a neat oil. A stock solution may be made by dissolving the heptafluorobutyric acid in the solvent of choice, which should be purged with an inert gas. Heptafluorobutyric acid is soluble in chloroform and methanol.

Description

Heptafluorobutyric acid is a perfluoroalkyl substance (PFAS).¹ Chronic topical administration of heptafluorobutyric acid (25 μl of a 3.75-15% v/v solution) on the ear increases liver and kidney weight in mice. It induces multifocal hepatocyte necrosis and centrilobular hepatocyte hypertrophy when administered topically at a concentration of 7.5% v/v. Heptafluorobutyric acid (15% v/v) increases serum cholesterol and alkaline phosphatase (ALP) levels and decreases serum urea nitrogen levels. It has been found in marine life and as a contaminant in surface water.^{2,3} Formulations containing heptafluorobutyric acid have been used as ion pair reagents for reverse-phase HPLC and in the synthesis and solubilization of proteins and peptides.

References

1. Weatherly, L.M., Shane, H.L., Lukomska, E., *et al.* Systemic toxicity induced by topical application of heptafluorobutyric acid (PFBA) in a murine model. *Food Chem. Toxicol.* **156**, 112528 (2021).
2. Lemos, L., Gantiva, L., Kaylor, C., *et al.* American oysters as bioindicators of emerging organic contaminants in Florida, United States. *Sci. Total Environ.* **835**, 155316 (2022).
3. Li, Q., Wang, P., Wang, C., *et al.* A novel procedure for predicting chronic toxicities and ecological risks of perfluorinated compounds in aquatic environment. *Environ. Res.* **215(Pt 1)**, 114132 (2022).

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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