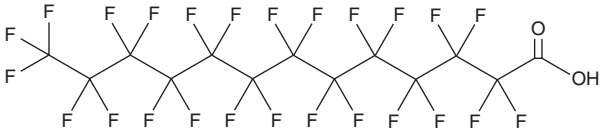
PRODUCT INFORMATION

Perfluorotridecanoic Acid

Item No. 37256

CAS Registry No.:	72629-94-8
Formal Name:	2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,13-pentacosafluorotridecanoic acid
Synonym:	PFTrDA
MF:	$C_{13}HF_{25}O_2$
FW:	664.1
Purity:	≥80%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Perfluorotridecanoic acid (PFTrDA) is supplied as a solid. A stock solution may be made by dissolving the PFTrDA in the solvent of choice, which should be purged with an inert gas. PFTrDA is slightly soluble in ethanol.

Description

PFTrDA is a perfluoroalkyl substance (PFAS). Embryo-larval exposure of PFTrDA induces yolk sac edema and increases mRNA expression of thyroid hormone synthesis genes, including *tshβ*, in zebrafish when used at concentrations of 0.1 and 0.3 mg/L, respectively.[1] PFTrDA (10 mg/kg) decreases serum testosterone and luteinizing hormone levels, testis palmitic acid (Item No. 10006627), linoleic acid (Item Nos. 90150 | 90150.1 | 21909), and oleic acid (Item Nos. 90260 | 24659) levels, and the number of Leydig cells in rats in late puberty.[2] Maternal plasma levels of PFTrDA during gestation are positively associated with the development of eczema in female, but not male, infants, and liver levels of PFTrDA are higher in cancerous human livers compared with non-cancerous human livers.[3,4] It has been found in marine mammals.[5]

References

1. Kim, J., Lee, G., Lee, Y.-M., *et al.* Thyroid disrupting effects of perfluoroundecanoic acid and perfluorotridecanoic acid in zebrafish (*Danio rerio*) and rat pituitary (GH3) cell line. *Chemosphere* **262**, 128012 (2021).
2. Zou, C., Yan, H., Wen, Z., *et al.* Perfluorotridecanoic acid inhibits Leydig cell maturation in male rats in late puberty via changing testicular lipid component. *Chem. Res. Toxicol.* **34(6)**, 1542-1555 (2021).
3. Okada, E., Sasaki, S., Kashino, I., *et al.* Prenatal exposure to perfluoroalkyl acids and allergic diseases in early childhood. *Environ. Int.* **65**, 127-134 (2014).
4. Liu, Y., Lin, N., Dai, C., *et al.* Occurrence and distribution of per- and polyfluoroalkyl substances (PFASs) in human livers with liver cancer. *Environ. Res.* **202**, 111775 (2021).
5. Rotander, A., Kärrman, A., van Bavel, B., *et al.* Increasing levels of long-chain perfluorocarboxylic acids (PFCAs) in Arctic and North Atlantic marine mammals, 1984-2009. *Chemosphere* **86(3)**, 278-285 (2012).

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