DO 6/3/2021

JS 2/28/22

Chemistry Report for Case # P-19-0139

General

Submitter: [redacted]

Contact: [redacted] **Contact Telephone No.:** [redacted]

TS No.: [redacted]

Chemist: D Lin **Contractor Support:** Y

PV Init (kg/yr): [redacted] **PV Max (kg/yr):** [redacted]

Binding Option: ☐ **Exposure-Based Review:** [redacted]

Manufacture: ☑ **Import:** ☐

CAS Number: [redacted]

Chemical Name [redacted]

Trade Name: None

IES Order:439408-2

Generic Name: Perfluoro-2-methyl-trioxaalkanoyl fluoride

Chemical Structure

[redacted]

Physical Chemical Properties

Molecular Formula: [redacted]	**Molecular Weight:** [redacted]
% < 500:	**% < 1000:**
MP:	**MP Estimate:**
BP:	**BP Pressure:** [redacted]
BP Estimate:	
VP (Torr):	**VP Estimate (Torr):** [redacted]
Water Solubility (g/L):	**Water Soluble Estimate (g/L):** [redacted]
Log P:	**Log P Estimate:**
Physical State — Neat: Liquid	**Physical State — Manuf:**Liquid

Physical State — Processing: NA
Physical State — End Use: Destroyed

Additional Chemical Info

Submitted Data: Liquid; [redacted]
Literature Data [STN eProp]: BP = 88-89°C at 760 torr.
Estimated Data [NOMO5 for BP = 88°C at 760 torr]: VP = 70.9 torr at 25°C.
Estimated Data [EPI with MP = -80°C, BP = 88°C, C(F)(F)(OC(F)(F)OC(F)(F)F)C(F)(F)OC(F)(C(F)(F)F)C(=O)F]: BP = 173.04°C; VP = 70.2 torr; WS = 0.0167 g/L; log P = 3.94. .
Estimated Data [STN/ACD Labs]: BP = 157.5°C; VP = 2.74 torr; WS = 5.8E-08 g/L; log P = 9.647.
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The substance will hydrolyze (sec) to yield hydrofluoric acid and the acid hydrolysis product propanoic acid, 2-[2-[difluoro(trifluoromethoxy)methoxy]-1,1,2,2-tetrafluoroethoxy]-2,3,3,3-tetrafluoro-.

Uses

Consumer Use? No	
Use:	Intended use: [redacted] intermediate [redacted]
	Synthetic scheme: P-19-138 -> P-19-139 -> P-19-140 -> [redacted]
	Analogues (same use): [redacted]
	Patents (same use): [redacted]
Other Uses:	Analogues (other use): [redacted]
	Analogues (same use and other use): none.
	Patents (other uses): [redacted]

Reaction Description

[redacted]

Pollution Prevention Analysis(P2 Analysis:)

P2 Claims: [redacted]

Analogs

[redacted]

Comments/Telephone Log

Artifact	Update/Upload Time
[redacted]	[redacted]