0542

2016 AIR EMISSIONS SUMMARY
POLYMER PROCESSING AID PROCESS

VOC Emisions			
Nickname	**Chemical Name**	**CAS No.**	**lb/yr**
FRD-901	Poly[oxy[trifluoro(trifluoromethyl)-1,2-ethanediyl]], .alpha.-(1-carboxy-1,2,2,2-tetrafluoroethyl)-.omega.-[tetrafluoro(trifluoromethyl)ethoxy]-	51798-33-5	0.6
HFPO Dimer Acid Fluoride	2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoyl fluoride	2062-98-8	21.9
HFPO Dimer Acid	2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid	13252-13-6	3.5
	Total VOC emissions (lb/yr)		26.0
	Total VOC emissions (ton/yr)		0.01

Particulate (PM) Emisions			
Nickname	**Chemical Name**	**CAS No.**	**lb/yr**
FRD-902	Propanoic acid, 2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-, ammonium salt	62037-80-3	2.1
	Total PM emissions (lb/yr)		2.1
	Total PM emissions (ton/yr)		0.001

Toxic Air Pollutant (TAP) Emisions			
Nickname	**Chemical Name**	**CAS No.**	**lb/yr**
Ammonia	Ammonia (NH3)	7664-41-7	80.7
HF	Hydrogen fluoride	7664-39-3	3.4
H2SO4	Sulfuric acid	7664-93-9	46.8

Note: NCDAQ requires that Acid Fluorides be reported as "Fluorides" as well as HF.

2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy) propanoic acid

HFPO Dimer Acid (FRD-903 or GX903)

CAS No.: 13252-13-6

Emissons based on data collected during stack testing in 2006.		Note 1
Virgin Campaign Emission Rate [lb./hr]	0.008	Note 2
Purified Campaign Emission Rate [lb./hr]	0.0024	
Amount of Annual Time dedicated to GX Virgin Production [fraction]	0.36	
Amount of Annual Time dedicated to GX Purified Production [fraction]	0.16	
Fraction of Emissions that are Dimer Acid	0.0896	Note 3

Total HFPO Dimer Acid Emissions [lb./year] **3.5**

Assumptions & Notes

Note 1 Calculations will be based on the air emissions conducted for the combined PFOF,PFOA, and APFO molecules noting that this **Dimer molecule will be modeled as the PFOF molecule.**

Note 2 Emission Rates are based on previously conducted stack testing and represent the

Note 3 Based on 2006 analysis.