Reactant SMILES F[CH]F **Product SMILES** [C]F + F

$$F \stackrel{F}{\underset{E}{\longleftarrow}} F + H_2O \rightarrow F \stackrel{F}{\underset{E}{\longleftarrow}} OH + FH$$

Reactant SMILES FC(F)(F)F + O**Product SMILES** OC(F)(F)F + F

Reactant SMILES O=C(F)F + O**Product SMILES** O=C(O)F + F

$$0.0$$
 \rightarrow F \rightarrow F \rightarrow 0 $+$ F \rightarrow 0

Reactant SMILES [O]OC(F)(F)F**Product SMILES** O=C(F)F + [O]F

$$F \xrightarrow{F} F \rightarrow F \xrightarrow{F} F + F - C \cdot$$

Reactant SMILES F[C](F)C(F)(F)F**Product SMILES** F(F)(F)F + F(F)F

$$F \xrightarrow{F} F + H_{2}O \rightarrow HO \xrightarrow{F} F + FH$$

Reactant SMILES FC(F)(F)C(F)(F)F + O**Product SMILES** OC(F)(F)C(F)(F)F + F

Reactant SMILES O=C(F)[C](F)F**Product SMILES** O=C(F)F+[C]F

$$F \xrightarrow{F} F \rightarrow F \xrightarrow{O} + F - C$$

Reactant SMILES F[C]1OC1(F)F **Product SMILES** O=C(F)F + [C]F

Reactant SMILES O=C(F)C(F)(F)F+O**Product SMILES** O=C(O)C(F)(F)F+F

Reactant SMILES [O]OC(F)(F)C(F)(F)F **Product SMILES** O=C(F)C(F)(F)F + [O]F

$$F \xrightarrow{F} 0 \rightarrow F \xrightarrow{} 0 + co$$

$$\bigvee_{0}^{HO} \bigvee_{F}^{F} \rightarrow F \bigvee_{F}^{F} + {}^{0} \otimes_{\mathbb{C}^{\nearrow}} 0$$

Reactant SMILES
Product SMILES

O=C(O)[C](F)FF[CH]F + O=C=O

$$\stackrel{\mathsf{HO}}{\longrightarrow} \stackrel{\mathsf{F}}{\longrightarrow} \stackrel{\mathsf{F}}{\longrightarrow} 0 + \mathsf{FH}$$

Reactant SMILES

O=C(O)C(F)(F)F

Product SMILES O=C1OC1(F)F + F

$$F \xrightarrow{F} F \rightarrow F \xrightarrow{F} F + F \xrightarrow{F}$$

Reactant SMILES Product SMILES

F[C]C(F)(F)C(F)(F)F

F[C](F)F + F[C]=C(F)F

$$F \xrightarrow{F} F \rightarrow F F + F - C$$

Reactant SMILES Product SMILES

F[C]C(F)(F)C(F)(F)FF[C](F)C(F)(F)F + [C]F

$$F \xrightarrow{F} \xrightarrow{F} F \rightarrow F$$

Reactant SMILES
Product SMILES

FC(F)(F)C(F)(F)C(F)(F)FFC(F)=C(F)F+FC(F)(F)F

$$\mathsf{F} \stackrel{\mathsf{F}}{\stackrel{\mathsf{F}}{\longrightarrow}} \mathsf{F} \; \mathsf{+} \; \mathsf{H}_2\mathsf{O} \; \to \; \mathsf{F} \stackrel{\mathsf{F}}{\stackrel{\mathsf{F}}{\longrightarrow}} \mathsf{OH} \; \mathsf{+} \; \mathsf{FH}$$

Reactant SMILES

FC(F)(F)C(F)(F)C(F)(F)F +

Product SMILES

OC(F)(F)C(F)(F)C(F)(F)F +

$$\sum_{F} F F \rightarrow F + F$$

Reactant SMILES Product SMILES

O=C(F)C(F)(F)C(F)(F)FFC(F)=C(F)F+O=C(F)F

Reactant SMILES
Product SMILES

O=C(F)C(F)(F)C(F)(F)F + O O=C(O)C(F)(F)C(F)(F)F + F

$$F \xrightarrow{F} O \xrightarrow{F} F \rightarrow F \xrightarrow{O} + F \xrightarrow{F} O$$

Reactant SMILES Product SMILES

FC(F)=C(F)OC(F)(F)FO=C(F)F + FC(F)=C(F)F

$$F \xrightarrow{F} F \xrightarrow{F} F \xrightarrow{F} F$$

Reactant SMILES
Product SMILES

FC(F)(F)[C-]=[O+]C(F)(F)FFC(F)=C(F)OC(F)(F)F

$$F \xrightarrow{F} F \rightarrow F \xrightarrow{F} F + F \xrightarrow{C}$$

Reactant SMILES Product SMILES

FC(F)(F)[C-]=[O+]C(F)(F)FF[C]C(F)(F)F + O=C(F)F

 $F \xrightarrow{F} \overset{O}{\longrightarrow} \overset{O}{\longrightarrow} OH \xrightarrow{F} F \xrightarrow{F} O + \overset{HO}{\longrightarrow} OFF$

Reactant SMILES O=C(O)[C](F)OC(F)(F)F**Product SMILES** O=C(F)F + O=C(O)[C](F)F

Paratant SMILES 0-C(0)(C)(E)OC(E)

 $\begin{array}{lll} \textbf{Reactant SMILES} & O = C(O)[C](F)OC(F)(F)F \\ \textbf{Product SMILES} & F[CH]OC(F)(F)F + O = C = O \\ \end{array}$

Product SMILES
$$O=C(F)F$$
 $O=C(F)F$
 $O=C(F$

$$O=C(F)C(F)(F)C(F)(F)C(F)$$

$$(F)F + O$$

$$O=C(O)C(F)(F)C(F)(F)C(F)$$

(F)F + F

$$F \xrightarrow{F} \xrightarrow{F} \xrightarrow{F} F + \xrightarrow{F} F$$

$$FC(F)=C(F)OC(F)(F)C(F)$$

$$O=C(F)C(F)(F)F + FC(F)=C(F)F$$

$$F \xrightarrow{F} \xrightarrow{\bullet} F \xrightarrow{F} F$$

$$FC(F)(F)[C-]=[O+]C(F)$$

$$FC(F)=C(F)OC(F)(F)C(F)$$

$$F \xrightarrow{F} F \xrightarrow{F} F + F \xrightarrow{F} F$$

Reactant SMILES

$$FC(F)(F)[C-]=[O+]C(F)$$

$$O=C(F)C(F)(F)F + F[C]C(F)$$

(F)F

$$F \rightarrow F \rightarrow F \rightarrow F$$

Reactant SMILES

$$O=C(F)C(F)(F)F + FC(F)C(F)(F)F$$

$$F \stackrel{F}{\longleftarrow} F + CO$$

Reactant SMILES

$$O=C1OC1(F)C(F)(F)C(F)$$

$$O=C(F)C(F)(F)C(F)(F)F +$$
[C-]#[O+]

$$F \xrightarrow{F} F + 0 \sim_{\mathbb{C}} 0$$

$$O=C1OC1(F)C(F)(F)C(F)$$

$$FC(F)=C(F)C(F)(F)F + O=C=O$$

$$F \xrightarrow{F} F + 0 \approx_{\mathbb{C}} 0$$

$$O=C1OC1(F)C(F)(F)C(F)$$

$$F[C]C(F)(F)C(F)(F)F + O=C=O$$

O=C(O)C(F)(F)C(F)(F)C(F)

(F)F

Product SMILES

O=C1OC1(F)C(F)(F)C(F)(F)F + F

$$F \xrightarrow{F} F \xrightarrow{F} F + F \xrightarrow{F} F$$

Reactant SMILES

O=C(OC(F)(F)C(F)(F)F)C(F)

(F)F

Product SMILES

O=C(F)C(F)(F)F + O=C(F)C(F)(F)F

Reactant SMILES

FC(F)(F)O[C](OC(F)

(F)F)C(F)(F)F

Product SMILES

F[C](OC(F)(F)F)C(F)(F)F +

O=C(F)F

$$F \xrightarrow{F} O \xrightarrow{F} F \rightarrow F \xrightarrow{O} F F + CO$$

Reactant SMILES

O=C1OC1(OC(F)(F)F)C(F)

(F)F

Product SMILES

O=C(OC(F)(F)F)C(F)(F)F + [C-]#[O+]

F_{__}F

$$F \xrightarrow{F} O \xrightarrow{F} F \xrightarrow{F} O$$

Reactant SMILES

O=C1OC1(OC(F)(F)F)C(F)

Product SMILES

FC(F)(F)[C-]=[O+]C(F)(F)F

+ O=C=O

$$F \xrightarrow{F} O OH \rightarrow OF F + OF F$$

Reactant SMILES

O=C(O)[C](F)OC(F)(F)C(F)

(F)F

Product SMILES

O=C(F)C(F)(F)F + O=C(O)

[C](F)F

$$F \xrightarrow{F} \xrightarrow{O} OH \rightarrow F \xrightarrow{F} \xrightarrow{F} O \xrightarrow{F} F \xrightarrow{O} OH \rightarrow F \xrightarrow{F} OH \rightarrow C \nearrow OH$$

Reactant SMILES

O=C(O)[C](F)OC(F)(F)C(F)

(F)F

Product SMILES

F[CH]OC(F)(F)C(F)(F)F + O=C=O

$$F \xrightarrow{0} F \xrightarrow{F} F$$

Reactant SMILES

O=C(O)C(F)(OC(F)(F)F)C(F)(F)F

Product SMILES

O=C(F)F + O=C(O)C(F)

O=C(O)C(F)(OC(F)(F)F)C(F)(F)F

Product SMILES

O=C1OC1(OC(F)(F)F)C(F)(F)F + F

Reactant SMILES

FC(F)=C(F)OC(F)(F)C(F)

(F)C(F)(F)F

Product SMILES

O=C(F)C(F)(F)C(F)(F)F + FC(F)=C(F)F

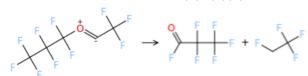
 $F \xrightarrow{F} F \xrightarrow{F} F \xrightarrow{F} F$

Reactant SMILES

FC(F)(F)[C-]=[O+]C(F)(F)C(F)(F)C(F)(F)F

Product SMILES

FC(F)=C(F)OC(F)(F)C(F)(F)C(F)(F)F



Reactant SMILES

FC(F)(F)[C-]=[O+]C(F)(F)C(F)(F)C(F)(F)F

Product SMILES

O=C(F)C(F)(F)C(F)(F)F + F[C]C(F)(F)F

 $F \xrightarrow{F} F \xrightarrow{F} F \xrightarrow{F} F \xrightarrow{F} F \xrightarrow{F} F$

Reactant SMILES

FC(OC(F)(F)C(F)(F)C(F)

(F)F)C(F)(F)F

Product SMILES

O=C(F)C(F)(F)C(F)(F)F + FC(F)C(F)(F)F

 $F \xrightarrow{F} F F F + CC$

Reactant SMILES

O=C1OC1(F)C(F)(F)C(F)

(F)C(F)(F)F

Product SMILES

 $O=C(F)C(F)(F)C(F)(F)C(F) \\ (F)F + [C-]\#[O+]$

 $F \xrightarrow{F} F \xrightarrow{F} O \longrightarrow F \xrightarrow{F} F \xrightarrow{F} F + O \longrightarrow O$

Reactant SMILES

O=C1OC1(F)C(F)(F)C(F)

(F)C(F)(F)F

Product SMILES

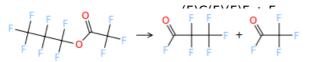
F[C]C(F)(F)C(F)(F)C(F)(F)F+ O=C=O

Reactant SMILES

O=C(O)C(F)(F)C(F)(F)C(F)(F)C(F)(F)F

Product SMILES

O=C1OC1(F)C(F)(F)C(F)



O=C(OC(F)(F)C(F)(F)C(F)

(F)F)C(F)(F)F

Product SMILES

O=C(F)C(F)(F)C(F)(F)F +

O=C(F)C(F)(F)F

$$F \downarrow 0 \qquad F \downarrow F \qquad F \downarrow$$

Reactant SMILES

FC(F)(F)O[C](OC(F)(F)C(F)

(F)F)C(F)(F)F

Product SMILES

F[C](OC(F)(F)C(F)(F)F)C(F)

(F)F + O = C(F)F

$$F \xrightarrow{F} F \rightarrow F \xrightarrow{F} F + co$$

Reactant SMILES

O=C1OC1(OC(F)(F)C(F)

(F)F)C(F)(F)F

Product SMILES

O=C(OC(F)(F)C(F)(F)F)C(F)

(F)F + [C-]#[O+]

$$F \xrightarrow{F} 0 \xrightarrow{F} F \longrightarrow F \xrightarrow{F} F \longrightarrow F \longrightarrow F F$$

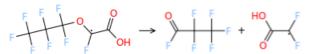
Reactant SMILES

O=C1OC1(OC(F)(F)C(F)

(F)F)C(F)(F)F

Product SMILES

FC(F)(F)[C-]=[O+]C(F)(F)C(F)(F)F+O=C=O



Reactant SMILES

O=C(O)[C](F)OC(F)(F)C(F)

(F)C(F)(F)F

Product SMILES

O=C(F)C(F)(F)C(F)(F)F +

O=C(O)[C](F)F

$$F \xrightarrow{F} O \xrightarrow{OH} F \xrightarrow{F} F \xrightarrow{HO} F \xrightarrow{F} F$$

Reactant SMILES

O=C(O)C(F)(OC(F)(F)C(F)

(F)F)C(F)(F)F

Product SMILES

O=C(F)C(F)(F)F +

O=C(O)C(F)(F)C(F)(F)F

$$F \xrightarrow{F} O \xrightarrow{F} F \rightarrow F \xrightarrow{F} O \xrightarrow{F} F + FH$$

Reactant SMILES

O=C(O)C(F)(OC(F)(F)C(F)

(F)F)C(F)(F)F

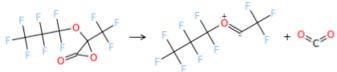
Product SMILES

O=C1OC1(OC(F)(F)C(F)(F)F)C(F)(F)F + F

Reactant SMILES

O=C1OC1(OC(F)(F)C(F)(F)C(F)(F)F)C(F)(F)F **Product SMILES**

O=C(OC(F)(F)C(F)(F)C(F) (F)F)C(F)(F)F + [C-]#[O+]



Reactant SMILES

O=C1OC1(OC(F)(F)C(F) (F)C(F)(F)F)C(F)(F)F FC(F)(F)[C-]=[O+]C(F) (F)C(F)(F)C(F)(F)F +

Product SMILES

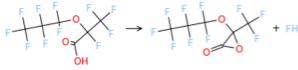
O=C=O

Reactant SMILES

 $O=C(O)C(F)(OC(F)(F)C(F) \\ (F)C(F)(F)F)C(F)(F)F$

Product SMILES

O=C(F)C(F)(F)C(F)(F)F + O=C(O)C(F)(F)C(F)(F)F



Reactant SMILES

O=C(O)C(F)(OC(F)(F)C(F)(F)C(F)(F)F)C(F)(F)F

Product SMILES

O=C1OC1(OC(F)(F)C(F) (F)C(F)(F)F)C(F)(F)F + F

Reactant SMILES

O=C(O)C(F)(OC(F)(F)C(F)(F)C(F)(F)F)C(F)(F)F

(F)C(F)(F)F)C(F)(F)F

Product SMILES $\begin{array}{c} FC(F)(F)C(F)(F)C(F)(F)F + \\ O=C(O)C(=O)C(F)(F)F \end{array}$