```
[npropyl]well 1=>OH+prod 1-->[prod 1]
                           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH-->[frag 1]
2
                            [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH-->[CO]
3
4
                            [npropyl]npropyloo=>OH+propoxide-->[propoxide]
5
                            [npropyl]npropyloo=>QOOH 2-->[QOOH 2]QOOH 2=>OH+propoxide-->[propoxide]
                            [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>3</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>OOH+HCO--
6
                           >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                           [npropyl]npropyloo+C<sub>3</sub>H<sub>8</sub>=>npropylooh+npropyl--
                           >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]
                           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
                           >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
8
                            >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                           [npropyl]well_1=>HO<sub>2</sub>+prod_2-->[prod_2]prod_2=>allyloxy+OH-->[allyloxy]
9
                           [npropyl]npropyloo+C<sub>3</sub>H<sub>8</sub>=>npropylooh+ipropyl--
10
                           >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]
                           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                           [frag_1] frag_1=vinoxy+CH_2O-->[CH_2O] CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>O=vinoxy+CH_2O-->CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+CH<sub>2</sub>OO+
11
                            >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]
                            [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                            >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]ipropyloo+CH<sub>2</sub>O=>ipropylooh+HCO--
12
                            >[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]
                            [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]npropyloo+CH<sub>2</sub>O=>npropylooh+HCO--
                           >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]
13
                            [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2--
                            >[npropyl]well 1=>OH+prod 1-->[prod 1]
14
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[npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2--
15
          >[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH-->[frag 1]
          [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2--
          >[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
16
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH-->[CO]
17
          [npropyl]O<sub>2</sub>+QOOH_1=>OH+OH+frag_1-->[frag_1]
          [npropyl]O<sub>2</sub>+QOOH 1=>OH+OH+frag 1-->[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O--
18
          >[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
19
          >[CH<sub>2</sub>O]CH<sub>3</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>OOH+HCO-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          \sim [frag_1]frag_1=\simvinoxy+CH<sub>2</sub>O--\sim[vinoxy]vinoxy+O<sub>2</sub>=\simCH<sub>2</sub>O+CO+OH--
          >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
20
          >[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
21
          [npropyl]npropyloo=>HO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>-->[C<sub>3</sub>H<sub>6</sub>]C<sub>3</sub>H<sub>6</sub>+HO<sub>2</sub>=>propen1ol+OH-->[propen1ol]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
          >[CH<sub>2</sub>O]CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>CH<sub>2</sub>OOH+HCO--
22
          >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
          >[CH<sub>2</sub>O]ipropyloo+CH<sub>2</sub>O=>ipropylooh+HCO-->[ipropylooh]ipropylooh=>ipropyloxy+OH-
          ->[ipropyloxy]
23
```

```
[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
          >[CH<sub>2</sub>O]npropyloo+CH<sub>2</sub>O=>npropylooh+HCO--
24
          >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]
25
          [npropyl]O<sub>2</sub>+npropyl=>OH+propoxide-->[propoxide]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
          >[HCO]HCO+O_2=>CO+HO_2-->[HO_2]ipropyloo+HO_2=>ipropylooh+O_2--
          >[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]
26
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>CH<sub>2</sub>OOH+HCO--
          >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]ethoxy=>CH<sub>3</sub>+CH<sub>2</sub>O--
27
          >[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
28
          [npropyl]npropyloo=>HO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>-->[C<sub>3</sub>H<sub>6</sub>]HO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>=>OH+propoxide-->[propoxide]
          [npropy]]npropyloo=>HO_2+C_3H_6-->[C_3H_6]C_3H_6+OH=>allyl+H_2O--
29
          >[allyl]allyl+HO<sub>2</sub>=>prod_2-->[prod_2]prod_2=>allyloxy+OH-->[allyloxy]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
          >[HCO]HCO+O_2=>CO+HO_2-->[HO_2]npropyloo+HO_2=>npropylooh+O_2--
30
          >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
          >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>CH<sub>2</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>CH<sub>2</sub>OOH+O<sub>2</sub>--
31
          >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]
```

```
[npropyl]well_1=>OH+prod_1-->[prod_1]prod_1=>frag_1+OH--
           >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]ipropyloo+CH<sub>2</sub>O=>ipropylooh+HCO--
           >[ipropylooh]ipropylooh=>ipropyloxy+OH--
          >[ipropyloxy]ipropyloxy=>CH<sub>3</sub>+acetaldehyde-->[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
32
           >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
           >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
          >[HO<sub>2</sub>]ipropyloo+HO<sub>2</sub>=>ipropylooh+O<sub>2</sub>-->[ipropylooh]ipropylooh=>ipropyloxy+OH--
33
           >[ipropyloxy]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag 1]frag_1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
34
           >[CO]CO+HO_2=>CO_2+OH-->[CO_2]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
          >[CH<sub>2</sub>O]CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>CH<sub>2</sub>OOH+HCO--
          >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]ethoxy=>CH<sub>3</sub>+CH<sub>2</sub>O--
35
          >[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
          >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+HO<sub>2</sub>=>HCO+H<sub>2</sub>O<sub>2</sub>--
          >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
36
          >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
          >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
           >[HO<sub>2</sub>]npropyloo+HO<sub>2</sub>=>npropylooh+O<sub>2</sub>-->[npropylooh]npropylooh=>npropyloxy+OH-
37
          >[npropyloxy]
          [npropyl]npropyloo=>HO_2+C_3H_6-->[C_3H_6]HO_2+C_3H_6=>QOOH_2--
38
           >[QOOH 2]QOOH 2=>OH+propoxide-->[propoxide]
```

```
[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
         >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
         >[HO<sub>2</sub>]CH<sub>3</sub>CH<sub>2</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>CH<sub>2</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH--
39
         >[ethoxy]
         [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
         >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]HO<sub>2</sub>+HO<sub>2</sub>=>H<sub>2</sub>O<sub>2</sub>+O<sub>2</sub>--
40
         >[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+formylperoxy=>HCO+formylooh--
         >[formylooh]formylooh=>formyloxy+OH-->[formyloxy]
41
42
          [npropyl]well 1=>OH+prod 3-->[prod 3]
43
          [npropyl]well 1=>OH+prod 3-->[prod 3]prod 3=>frag 3+OH-->[frag 3]
          [npropyl]well 1=>OH+prod 3-->[prod 3]prod 3=>frag 3+OH--
         >[frag 3]frag 3+OH=>prod 3-->[prod 3]prod 3=>frag 3+OH-->[frag 3]
44
          [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
         >[CH<sub>2</sub>O]ipropyloo+CH<sub>2</sub>O=>ipropylooh+HCO-->[ipropylooh]ipropylooh=>ipropyloxy+OH-
         ->[ipropyloxy]ipropyloxy=>CH<sub>3</sub>+acetaldehyde-->[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
45
         >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
         [npropyl]npropyloo=>HO_2+C_3H_6-->[C_3H_6]C_3H_6+OH=>allyl+H_2O--
46
         >[allyl]allyl+HO<sub>2</sub>=>allyloxy+OH-->[allyloxy]
          [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
         >[ipropyl]ipropyloo+C<sub>3</sub>H<sub>8</sub>=>ipropylooh+ipropyl--
         >[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]
47
          [npropyl]well 1=>OH+prod 3-->[prod 3]prod 3=>frag 3+OH--
          >[frag 3]frag 3+OH=>prod 3-->[prod 3]prod 3=>frag 3+OH--
         >[frag_3]frag_3+OH=>prod_3-->[prod_3]prod_3=>frag_3+OH-->[frag_3]
48
```

```
[npropyl]well_1=>OH+prod_1-->[prod_1]prod_1=>frag_1+OH--
           >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
           >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>CH<sub>2</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>CH<sub>2</sub>OOH+O<sub>2</sub>--
           >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]ethoxy=>CH<sub>3</sub>+CH<sub>2</sub>O--
49
           >[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
           [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
           \sim[ipropyl]ipropyloo=\simHO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>--\sim[HO<sub>2</sub>]C<sub>3</sub>H<sub>8</sub>+HO<sub>2</sub>=\simnpropyl+H<sub>2</sub>O<sub>2</sub>--
50
           >[npropyl]well 1=>OH+prod 1-->[prod 1]
           [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
           \sim[ipropyl]ipropyloo=\simHO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>--\sim[HO<sub>2</sub>]C<sub>3</sub>H<sub>8</sub>+HO<sub>2</sub>=\simnpropyl+H<sub>2</sub>O<sub>2</sub>--
51
           >[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH-->[frag 1]
           [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
           >[ipropyl]ipropyloo=>HO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>-->[HO<sub>2</sub>]C<sub>3</sub>H<sub>8</sub>+HO<sub>2</sub>=>npropyl+H<sub>2</sub>O<sub>2</sub>--
           >[npropyl]well_1=>OH+prod_1-->[prod_1]prod_1=>frag_1+OH--
52
           \sim [frag_1]frag_1=\simvinoxy+CH<sub>2</sub>O--\sim[vinoxy]vinoxy+O<sub>2</sub>=\simCH<sub>2</sub>O+CO+OH--\sim[CO]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]npropyloo+CH<sub>2</sub>O=>npropylooh+HCO--
           >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]npropyloxy=>C<sub>2</sub>H<sub>5</sub>+CH<sub>2</sub>O--
           [C_2H_5]CH_3CH_2OO+HO_2=>CH_3CH_2OOH+O_2->[CH_3CH_2OOH]CH_3CH_2OOH=>ethoxy+OH--
53
           >[ethoxy]
           [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
54
           >[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]
           [npropyl]npropyloo=>HO_2+C_3H_6-->[C_3H_6]C_3H_6+HO_2=>allyl+H_2O_2--
55
           >[allyl]allyl+HO<sub>2</sub>=>prod_2-->[prod_2]prod_2=>allyloxy+OH-->[allyloxy]
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[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                   >[frag_1]frag_1=>vinoxy+CH_2O-->[CH_2O]CH_2O+OH=>HCO+H_2O--
                   >[HCO]HCO+O_2=>CO+HO_2-->[HO_2]ipropyloo+HO_2=>ipropylooh+O_2--
                   >[ipropylooh]ipropylooh=>ipropyloxy+OH--
                   >[ipropyloxy]ipropyloxy=>CH<sub>3</sub>+acetaldehyde-->[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
56
                   >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                   [npropyl]well 1=>HO_2+prod 2-->[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2--
57
                    >[npropyl]well 1=>OH+prod 1-->[prod 1]
                    [npropyl]well 1=>HO_2+prod 2-->[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2--
58
                   >[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH-->[frag 1]
                    [npropyl]well 1=>HO_2+prod 2-->[HO_2]C_3H_8+HO_2=>npropyl+<math>H_2O_2--
                   >[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
59
                   >[frag_1]frag_1=>vinoxy+CH_2O-->[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]
                   [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                   >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>CH<sub>2</sub>OOH+HCO--
                   >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
60
                   >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                   [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                   >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>3</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>OOH+HCO--
                   >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
61
                   >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                   [npropyl]O<sub>2</sub>+QOOH 1=>HO<sub>2</sub>+prod_2-->[prod_2]prod_2=>allyloxy+OH-->[allyloxy]
62
                   [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                   \sim [frag_1]frag_1 = vinoxy + CH_2O - vinoxy]vinoxy + O_2 = vCH_2O + CO + OH - vinoxy + O_3 = vinoxy + O_4 = vinoxy + O_5 = vinoxy + O_6 = vi
                   >[CH<sub>2</sub>O]CH<sub>2</sub>O+HO<sub>2</sub>=>HCO+H<sub>2</sub>O<sub>2</sub>-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
                   >[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
63
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```
[npropyl]npropyloo+C<sub>3</sub>H<sub>8</sub>=>npropylooh+npropyl--
                    >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]npropyloxy=>C<sub>2</sub>H<sub>5</sub>+CH<sub>2</sub>O--
                    >[C<sub>2</sub>H<sub>5</sub>]CH<sub>3</sub>CH<sub>2</sub>OO+C<sub>3</sub>H<sub>8</sub>=>CH<sub>3</sub>CH<sub>2</sub>OOH+ipropyl--
                    >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]
64
                    [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                    [frag_1]frag_1 = vinoxy + CH_2O - vinoxy + CH_2O_1 - vinoxy + CH_2O_2 - vinoxy + CH_2O_3 - vinoxy + cH_2O_
65
                    >[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]
                    [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                    >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]npropyloo+CH<sub>2</sub>O=>npropylooh+HCO--
                    >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>2</sub>OO+HO<sub>2</sub>=>CH<sub>2</sub>OOH+O<sub>2</sub>--
66
                    >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                    [npropyl]npropyloo+C<sub>3</sub>H<sub>8</sub>=>npropylooh+ipropyl--
                    >[ipropyl]ipropyloo+C<sub>3</sub>H<sub>8</sub>=>ipropylooh+ipropyl--
                    >[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]
67
                    [npropyl]npropyloo=>QOOH 2-->[QOOH 2]well 2=>well 3--
68
                    >[well 3]QOOH 3=>OH+propoxide-->[propoxide]
                     [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
69
                     \sim[ipropyl]ipropyloo=\simHO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>--\sim[C<sub>3</sub>H<sub>6</sub>]C<sub>3</sub>H<sub>6</sub>+HO<sub>2</sub>=\simpropen1ol+OH--\sim[propen1ol]
                     [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                    >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+acetylperoxy=>HCO+CH<sub>3</sub>CO<sub>3</sub>H--
70
                    >[CH<sub>3</sub>CO<sub>3</sub>H]CH<sub>3</sub>CO<sub>3</sub>H=>acetyloxy+OH-->[acetyloxy]
                    [npropyl]npropyloo+C<sub>3</sub>H<sub>8</sub>=>npropylooh+ipropyl--
                    >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]npropyloxy=>C<sub>2</sub>H<sub>5</sub>+CH<sub>2</sub>O--
                    >[C<sub>2</sub>H<sub>5</sub>]CH<sub>3</sub>CH<sub>2</sub>OO+C<sub>3</sub>H<sub>8</sub>=>CH<sub>3</sub>CH<sub>2</sub>OOH+ipropyl--
71
                    >[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH-->[ethoxy]
                    [npropyl]npropyloo+C_3H_8=>npropylooh+ipropyl-->[ipropyl]ipropyloo=>HO_2+C_3H_6--
72
                     >[HO<sub>2</sub>]C<sub>3</sub>H<sub>8</sub>+HO<sub>2</sub>=>npropyl+H<sub>2</sub>O<sub>2</sub>-->[npropyl]well 1=>OH+prod 1-->[prod 1]
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[npropyl]npropyloo+C_3H_8=>npropylooh+ipropyl-->[ipropyl]ipropyloo=>HO_2+C_3H_6--
         >[HO<sub>2</sub>]C<sub>3</sub>H<sub>8</sub>+HO<sub>2</sub>=>npropyl+H<sub>2</sub>O<sub>2</sub>-->[npropyl]well_1=>OH+prod_1--
73
         >[prod 1]prod 1=>frag 1+OH-->[frag 1]
         [npropyl]npropyloo+C_3H_8=>npropylooh+ipropyl-->[ipropyl]ipropyloo=>HO_2+C_3H_6--
         >[HO<sub>2</sub>]C<sub>3</sub>H<sub>8</sub>+HO<sub>2</sub>=>npropyl+H<sub>2</sub>O<sub>2</sub>-->[npropyl]well 1=>OH+prod 1--
         >[prod 1]prod 1=>frag 1+OH-->[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O--
74
         >[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]
         [npropyl]well 1=>OH+prod 3-->[prod 3]prod 3=>frag 3+OH--
         >[frag 3]frag 3+OH=>prod 3-->[prod 3]prod 3=>frag 3+OH--
         >[frag_3]frag_3+OH=>prod_3-->[prod_3]prod_3=>frag_3+OH--
         >[frag 3]frag 3+OH=>prod 3-->[prod 3]prod 3=>frag 3+OH-->[frag 3]
75
         [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
         >[HCO]HCO+O_2=>CO+HO_2-->[HO_2]allyl+HO_2=>prod 2-->[prod 2]prod 2=>allyloxy+OH-
76
         ->[allyloxy]
         [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]ipropyloo+CH<sub>2</sub>O=>ipropylooh+HCO--
         >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
77
         >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
         [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
78
         >[HCO]HCO+O_2=>CO+HO_2-->[HO_2]C_3H_6+HO_2=>propen1ol+OH-->[propen1ol]
         [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
         >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
         >[HCO]HCO+O<sub>2</sub>=>formylperoxy--
         >[formylperoxy]CH<sub>2</sub>O+formylperoxy=>HCO+formylooh--
79
         >[formylooh]formylooh=>formyloxy+OH-->[formyloxy]
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[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                              >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
                              >[CH<sub>2</sub>O]CH<sub>2</sub>O+formylperoxy=>HCO+formylooh--
80
                              >[formylooh]formylooh=>formyloxy+OH-->[formyloxy]
                              [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                              >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
                              >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]HO<sub>2</sub>+HO<sub>2</sub>=>H<sub>2</sub>O<sub>2</sub>+O<sub>2</sub>-
81
                               ->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]
82
                               [npropyl]O<sub>2</sub>+npropyl=>QOOH 2-->[QOOH 2]QOOH 2=>OH+propoxide-->[propoxide]
                              [npropyl]well 1=>HO<sub>2</sub>+prod 2-->[prod 2]prod 2=>allyloxy+OH--
                              >[allyloxy]allyloxy=>acrolein+H-->[acrolein]acrolein+HO<sub>2</sub>=>CH<sub>2</sub>CHCO+H<sub>2</sub>O<sub>2</sub>--
83
                              >[CH<sub>2</sub>CHCO]CH<sub>2</sub>CHCO+O<sub>2</sub>=>vinoxy+CO<sub>2</sub>-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH-->[CO]
                              [npropyl]O_2 + npropyl = > HO_2 + C_3H_6 - > [HO_2]C_3H_8 + HO_2 = > npropyl + H_2O_2 - H_2O_2 + H_2O_2 - H_2O_2 + H_2
84
                              >[npropyl]well 1=>OH+prod 1-->[prod 1]
                              [npropy|]O_2+npropy|=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>npropy|+H_2O_2--
85
                               >[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH-->[frag 1]
                              [npropyl]O_2 + npropyl = > HO_2 + C_3H_6 - > [HO_2]C_3H_8 + HO_2 = > npropyl + H_2O_2 - H_2O_2 + H_2O_2 - H_2O_2 + H_2
                              >[npropyl]well 1=>OH+prod 1-->[prod 1]prod_1=>frag_1+OH--
86
                              >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH-->[CO]
                               [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                              >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
87
                              >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[CO]CO+HO<sub>2</sub>=>CO<sub>2</sub>+OH-->[CO<sub>2</sub>]
                              [npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
88
                               >[H<sub>2</sub>O<sub>2</sub>]H<sub>2</sub>O<sub>2</sub>+H=>H<sub>2</sub>O+OH-->[H<sub>2</sub>O]
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```
[npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
           >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
           >[HO<sub>2</sub>]CH<sub>3</sub>CH<sub>2</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>CH<sub>2</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>CH<sub>2</sub>OOH]CH<sub>3</sub>CH<sub>2</sub>OOH=>ethoxy+OH--
           >[ethoxy]ethoxy=>CH<sub>3</sub>+CH<sub>2</sub>O-->[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
89
           >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
           >[HCO]HCO+O<sub>2</sub>=>formylperoxy--
           >[formylperoxy]C<sub>3</sub>H<sub>8</sub>+formylperoxy=>ipropyl+formylooh--
90
           >[formylooh]formylooh=>formyloxy+OH-->[formyloxy]
           [npropyl]npropyloo+C_3H_8=>npropylooh+ipropyl-->[ipropyl]ipropyloo=>HO_2+C_3H_6--
91
           >[C_3H_6]C_3H_6+HO_2=>propen1ol+OH-->[propen1ol]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
           >[CH<sub>2</sub>O]npropyloo+CH<sub>2</sub>O=>npropylooh+HCO--
           >[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]npropyloxy=>C<sub>2</sub>H<sub>5</sub>+CH<sub>2</sub>O--
           >[C_2H_5]CH_3CH_2OO+HO_2=>CH_3CH_2OOH+O_2-->[CH_3CH_2OOH]CH_3CH_2OOH=>ethoxy+OH--
92
           >[ethoxy]
            [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
           >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
           >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]CH<sub>3</sub>O+O<sub>2</sub>=>CH<sub>2</sub>O+HO<sub>2</sub>--
93
           >[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
           [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
           >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
           >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]HO<sub>2</sub>+HO<sub>2</sub>=>H<sub>2</sub>O<sub>2</sub>+O<sub>2</sub>-->[H<sub>2</sub>O<sub>2</sub>]H<sub>2</sub>O<sub>2</sub>+H=>H<sub>2</sub>O+OH--
94
            >[H<sub>2</sub>O]
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[npropyl]npropyloo=>HO_2+C_3H_6-->[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2--
95
                     >[ipropyl]ipropyloo=>HO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>-->[C<sub>3</sub>H<sub>6</sub>]HO<sub>2</sub>+C<sub>3</sub>H<sub>6</sub>=>OH+propoxide-->[propoxide]
                     [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                     >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[vinoxy]vinoxy+O<sub>2</sub>=>CH<sub>2</sub>O+CO+OH--
                     >[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
                     >[HO<sub>2</sub>]ipropyloo+HO<sub>2</sub>=>ipropylooh+O<sub>2</sub>-->[ipropylooh]ipropylooh=>ipropyloxy+OH--
                     >[ipropyloxy]ipropyloxy=>CH<sub>3</sub>+acetaldehyde-->[CH<sub>3</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
96
                     >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                     [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                     >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+HO<sub>2</sub>=>HCO+H<sub>2</sub>O<sub>2</sub>--
                     >[HCO]HCO+O_2=>CO+HO_2-->[HO_2]ipropyloo+HO_2=>ipropylooh+O_2--
97
                     >[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]
                     [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                     \sim [frag_1]frag_1 = vinoxy + CH_2O - vinoxy]vinoxy + O_2 = vCH_2O + CO + OH - vinoxy + O_3 = vinoxy + O_4 = vinoxy + O_5 = vinoxy + O_6 = vi
                     >[CH<sub>2</sub>O]CH<sub>3</sub>CH<sub>2</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>CH<sub>2</sub>OOH+HCO-->[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>--
98
                     >[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                     [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                     >[frag_1]frag_1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>2</sub>O+OH=>HCO+H<sub>2</sub>O--
                     >[HCO]HCO+O<sub>2</sub>=>formylperoxy-->[formylperoxy]formylperoxy=>HCO+O<sub>2</sub>--
                     >[HCO]HCO+O<sub>2</sub>=>CO+HO<sub>2</sub>-->[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>--
99
                     >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
                     [npropyl]well 1=>OH+prod 1-->[prod 1]prod 1=>frag 1+OH--
                     >[frag 1]frag 1=>vinoxy+CH<sub>2</sub>O-->[CH<sub>2</sub>O]CH<sub>3</sub>OO+CH<sub>2</sub>O=>CH<sub>3</sub>OOH+HCO--
                     >[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]CH<sub>3</sub>O+O<sub>2</sub>=>CH<sub>2</sub>O+HO<sub>2</sub>--
100
                     >[HO<sub>2</sub>]CH<sub>3</sub>OO+HO<sub>2</sub>=>CH<sub>3</sub>OOH+O<sub>2</sub>-->[CH<sub>3</sub>OOH]CH<sub>3</sub>OOH=>CH<sub>3</sub>O+OH-->[CH<sub>3</sub>O]
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