PROBLEM_a - Methyl acetate

Case 0 :

  Starting State: Methyl acetate + H2O + HCl

  Goal Condition: (alcohol o2 h11)

  Plan Length: 1

Case 1 :

  Starting State: Methyl acetate + H2O + HCl + NaH

  Goal Condition: (alkoxide_salt na o2)

  Plan Length: 2

Case 2 :

  Starting State: Methyl acetate + H2O + HCl + NaH + ethyl halide

  Goal Condition: (ether o2)

  Plan Length: 3

Case 3 :

  Starting State: Methyl acetate + H2O + HCl + NaH + ethyl halide

  Goal Condition: (alcohol o2 h9)

  Plan Length: 4

Domain V1 - Alkyls defined without recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	16.84 sec	0.01 sec	0.01 sec	**16.86 sec**
Case 1	17.608 sec	0.01 sec	0.02 sec	**17.638 sec**
Case 2	47.793 sec	0.02 sec	0.04 sec	**47.853 sec**
Case 3	47.734 sec	0.02 sec	0.04 sec	**47.794 sec**

Domain V2 - Alkyls defined with recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	139.976 sec	0.01 sec	0.01 sec	**139.996 sec**
Case 1	141.467 sec	0.02 sec	0.01 sec	**141.497 sec**
Case 2	265.305 sec	0.02 sec	0.02 sec	**265.345 sec**
Case 3	264.267 sec	0.02 sec	0.02 sec	**264.307 sec**

PROBLEM_b - Ethyl acetate

Case 0 :

    Starting State: Ethyl acetate + H2O + HCl

    Goal Condition: (alcohol o2 h11)

    Plan Length: 1

Case 1 :

    Starting State: Ethyl acetate + H2O + HCl + NaH

    Goal Condition: (alkoxide_salt na o2)

    Plan Length: 2

Case 2 :

    Starting State: Ethyl acetate + H2O + HCl + NaH + ethyl halide

    Goal Condition: (ether o2)

    Plan Length: 3

Case 3 :

    Starting State: Ethyl acetate + H2O + HCl + NaH + ethyl halide

    Goal Condition: (alcohol o2 h9)

    Plan Length: 4

Domain V1 - Alkyls defined without recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	31.397 sec	0.01 sec	0.01 sec	**31.417 sec**
Case 1	38.642 sec	0.03 sec	0.02 sec	**38.692 sec**
Case 2	68.936 sec	0.04 sec	0.02 sec	**68.996 sec**
Case 3	68.699 sec	0.05 sec	0.02 sec	**68.769 sec**

Domain V2 - Alkyls defined with recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	193.963 sec	0.01 sec	0.01 sec	**193.983 sec**
Case 1	194.173 sec	0.02 sec	0.01 sec	**194.203 sec**
Case 2	321.191 sec	0.02 sec	0.02 sec	**321.231 sec**
Case 3	318.594 sec	0.03 sec	0.02 sec	**318.644 sec**

PROBLEM_c - Isopropyl acetate

Case 0 :
    Starting State: Isopropyl acetate + H2O + HCl
    Goal Condition: (alcohol o2 h11)
    Plan Length: 1

Case 1 :
    Starting State: Isopropyl acetate + H2O + HCl + NaH
    Goal Condition: (alkoxide_salt na o2)
    Plan Length: 2

Case 2 :
    Starting State: Isopropyl acetate + H2O + HCl + NaH + ethyl halide
    Goal Condition: (ether o2)
    Plan Length: 3

Case 3 :
    Starting State: Isopropyl acetate + H2O + HCl + NaH + ethyl halide
    Goal Condition: (alcohol o2 h9)
    Plan Length: 4

Domain V1 - Alkyls defined without recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	99.058 sec	0.01 sec	0.01 sec	**99.078 sec**
Case 1	140.268 sec	0.02 sec	0.02 sec	**140.308 sec**
Case 2	173.55 sec	0.02 sec	0.03 sec	**173.6 sec**
Case 3	175.092 sec	0.02 sec	0.03 sec	**175.142 sec**

Domain V2 - Alkyls defined with recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	247.775 sec	0.01 sec	0.01 sec	**247.795 sec**
Case 1	249.376 sec	0.02 sec	0.02 sec	**249.416 sec**
Case 2	378.524 sec	0.02 sec	0.03 sec	**378.574 sec**
Case 3	378.949 sec	0.03 sec	0.03 sec	**379.009 sec**

PROBLEM_d - Methyl butyrate

Case 0 :
   Starting State: Methyl butyrate + H2O + HCl
   Goal Condition: (alcohol o2 h11)
   Plan Length: 1

Case 1 :
   Starting State: Methyl butyrate + H2O + HCl + NaH
   Goal Condition: (alkoxide_salt na o2)
   Plan Length: 2

Case 2 :
   Starting State: Methyl butyrate + H2O + HCl + NaH + ethyl halide
   Goal Condition: (ether o2)
   Plan Length: 3

Case 3 :
   Starting State: Methyl butyrate + H2O + HCl + NaH + ethyl halide
   Goal Condition: (alcohol o2 h9)
   Plan Length: 4

Domain V1 - Alkyls defined without recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	8.030 sec	0.01 sec	0.01 sec	**8,05 sec**
Case 1	8.646 sec	0.01 sec	0.02 sec	**8.676 sec**
Case 2	39.414 sec	0.02 sec	0.03 sec	**39.464 sec**
Case 3	38.750 sec	0.02 sec	0.03 sec	**38.8 sec**

Domain V2 - Alkyls defined with recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	247.866 sec	0.01 sec	0.01 sec	**247.886 sec**
Case 1	247.980 sec	0.01 sec	0.01 sec	**248 sec**
Case 2	378.242 sec	0.02 sec	0.02 sec	**378.282 sec**
Case 3	378.910 sec	0.02 sec	0.02 sec	**378.95 sec**

PROBLEM_e - Butyl butyrate

Case 0 :
    Starting State: Butyl butyrate + H2O + HCl
    Goal Condition: (alcohol o2 h11)
    Plan Length: 1

Case 1 :
    Starting State: Butyl butyrate + H2O + HCl + NaH
    Goal Condition: (alkoxide_salt na o2)
    Plan Length: 2

Case 2 :
    Starting State: Butyl butyrate + H2O + HCl + NaH + ethyl halide
    Goal Condition: (ether o2)
    Plan Length: 3

Case 3 :
    Starting State: Butyl butyrate + H2O + HCl + NaH + ethyl halide
    Goal Condition: (alcohol o2 h9)
    Plan Length: 4

Domain V1 - Alkyls defined without recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	13.46 sec	0.01 sec	0.01 sec	**13.48 sec**
Case 1	15.981 sec	0.01 sec	0.02 sec	**16.011 sec**
Case 2	46.607 sec	0.02 sec	0.04 sec	**46.667 sec**
Case 3	45.691 sec	0.02 sec	0.03 sec	**45.741 sec**

Domain V2 - Alkyls defined with recursion

	Translation/Instantiation	Pre-Processing	Planning	TOTAL
Case 0	416.953 sec	0.01 sec	0.01 sec	**416.973 sec**
Case 1	418.747 sec	0.01 sec	0.02 sec	**418.777 sec**
Case 2	548.035 sec	0.02 sec	0.02 sec	**548.075 sec**
Case 3	546.843 sec	0.02 sec	0.02 sec	**546.883 sec**