

Activity 9.1 Chemical Compatibility Charts

STATION 1: Sulfuric Acid

Use pH test paper.

<i>Glove Types</i>	<i>Observations</i>	
Latex Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
4 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
11 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
Butyl Rubber	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	

STATION 2: Nitric Acid

Use pH test paper.

<i>Glove Types</i>	<i>Observations</i>	
Latex Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
4 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
11 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
Butyl Rubber	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	

STATION 3: Sodium Hydroxide (base)

Use pH test paper.

<i>Glove Types</i>	<i>Observations</i>	
Latex Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
4 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
11 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
Butyl Rubber	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	

STATION 4: 30% Hydrogen Peroxide

Use potassium iodide starch test strips.

<i>Glove Types</i>	<i>Observations</i>	
Latex Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
4 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
11 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
Butyl Rubber	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	

STATION 5: *meta*-Chloroperoxybenzoic Acid in Methylene Chloride

Use potassium iodide starch test strips.

<i>Glove Types</i>	<i>Observations</i>	
Latex Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
4 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
11 mil Nitrile Glove	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	
Butyl Rubber	5 min:	20 min:
	10 min:	25 min:
	15 min:	30 min:
	Inspection of Outside of Glove:	
	Inspection of Test Strip:	

Activity 9.2 How a Person Dissolves:
Acids, Bases, and Biological Tissue Recording Sheet

<i>Pig Skin</i>	<i>Tray 1</i>	<i>Tray 2</i>	<i>Tray 3</i>	
	Sulfuric Acid	Nitric Acid	Hydrochloric Acid	Sodium Hydroxide
0 min				
5				
10				
15				
20				
25				
30				
35				
40				

<i>Bacon</i>	<i>Tray 1</i>	<i>Tray 2</i>	<i>Tray 3</i>	
	Sulfuric Acid	Nitric Acid	Hydrochloric Acid	Sodium Hydroxide
0 min				
5				
10				
15				
20				
25				
30				
35				
40				

Note: At no time should students mix any of the individual acids or transfer material between beakers of differing acids/bases.