Student's Name _____ Class _____ Date_____

LAB-AIDS #84 Identification of Chemical Reactions Kit

Student Worksheet and Guide

Chemical changes are often referred to as *chemical reactions.*

Chemical reactions result in the formation of new substances and either absorption or emission of energy such as heat, light or electricity. A new substance may be recognized by a change in color or a change in state. Therefore the formation of a gas or a solid such as a precipitate where there was none indicates that a chemical reaction has occurred.

In this Lab-Aids, kit, you will be describing physical properties and characteristics of each of the seven solutions provided in the kit as well as the results of combining these solutions.

Part I

Procedure

1. In the space below, write a brief description of each of the seven solutions in this kit

Solution No. 1 _____

_____

Solution No. 2 _____

_____

Solution No. 3 _____

_____

Solution No. 4 _____

_____

Solution No. 5 _____

_____

Solution No. 6 _____

_____

Solution No. 7 _____

_____

Part II

Procedure

1. Mix every possible combination of solutions using 3-4 drops of each solution in cavities in the Chemplate™. Stir each mixture with a clean spatula. In the following chart, next to the appropriate combination of chemicals, describe the results that occur by mixing Solutions 1 and 2, 1 and 3, 1 and 4, etc. Record the results of the mixing by comparing the mixtures with the descriptions of solutions before they were mixed.

Reactions in the Mixture of Solutions

Sol. #1 with #2 _____
cavity #___ _____
_____

Sol. #1 with #3 _____
cavity #___ _____
_____

Sol. #1 with #4 _____
cavity #___ _____
_____

Sol. #1 with #5 _____
cavity #___ _____
_____

Sol. #1 with #6 _____
cavity #___ _____
_____

Sol. #1 with #7 _____
cavity #___ _____
_____

Sol. #2 with #3 _____
cavity #___ _____
_____

Sol. #2 with #4 _____
cavity #___ _____
_____

Sol. #2 with #5 _____
cavity #___ _____
_____

Sol. #2 with #6 _____
cavity #___ _____
_____

Sol. #2 with #7 _____
cavity #___ _____
_____

Sol. #3 with #4 _____
cavity #___ _____
_____

Sol. #3 with #5 _____
cavity #___ _____
_____

Sol. #3 with #6 _____
cavity #___ _____
_____

Sol. #3 with #7 _____
cavity #___ _____
_____

Sol. #4 with #5 _____
cavity #___ _____
_____

Sol. #4 with #6 _____
cavity #___ _____
_____

Sol. #4 with #7 _____
cavity #___ _____
_____

Sol. #5 with #6 _____
cavity #___ _____
_____

Sol. #5 with #7 _____
cavity #___ _____
_____

Sol. #6 with #7 _____
cavity #___ _____
_____

Unknown Sol. _____
with #1 _____
cavity #___ _____

Unknown Sol. _____
with #2 _____
cavity #___ _____

Unknown Sol. _____
with #3 _____
cavity #___ _____

Unknown Sol. _____
with #4 _____
cavity #___ _____

Unknown Sol. _____
with #5 _____
cavity #___ _____

Unknown Sol. _____
with #6 _____
cavity #___ _____

Unknown Sol. _____
with #7 _____
cavity #___ _____

Unknown Solution is _____
_____
_____

