

Chemicals - R - Us

Step 2 Worksheet

(turn this in with your journal)

Due Date: _____

We have looked at the history and origin of your product. Also, we have found the uses for your products and the qualities, which make your product useful. Now, we must look at the recipe for producing your product.

You will notice that your recipe has reactants and products, but no amounts. The recipe, also, has general procedure and lab safety considerations. At this point, you need to research the physical properties, chemical properties, and safety considerations of your reactants and products.

Write journal entries for each of the following. Use a separate page for each item. For your research you may use the internet and the Merck Index.

- 1. Physical Properties:** There are many different physical properties such as: melting point, boiling point, solubility etc. Write a complete list of physical properties for each reactant and product. You will be graded on the appropriateness of the list, the data on the list, and the completeness of the list.
- 2. Chemical Properties:** You need to research the chemical properties for your reactants and products. Some chemical properties you may include are: the flammability of your reactant and product, reactivity with other compounds, etc. Please be aware that there are other chemical properties that should be included. Write a complete list of the chemical properties for your reactants and products. You will be graded on the appropriateness of the list, the data on the list, and the completeness of the list.
- 3. Safety Considerations:** As you know there are many safety considerations when working with chemicals. Therefore, before you start any trials you should have a complete list of safety considerations for your reactants and products. You need to answer questions such as: is this chemical corrosive to your skin? What needs to be done if you get this chemical on your skin? Write a complete list of safety considerations.

At this point, you may need to redefine your product qualities. If you do write how you will redefine your qualities and why you need to. If you do not need to redefine your qualities, explain why

Name: _____

Period: _____

Name: _____

Date: _____

Chemicals - R - Us Step 2 Evaluation

Criteria / Value	Partner: (S/U)	Partner: (S/U)	Teacher: Score
Physical Properties (25 points)			
Complete list of physical properties (5 pt)			
Data of physical properties (15 pt)			
Use of Merck Index and internet (5 pt)			
Chemical Properties (25 points)			
Complete list of chemical properties (5 pt)			
Data of chemical properties (15 pt)			
Use of Merck Index (5 pt)			
Safety Considerations (25 points)			
Potential safety hazards of chemicals (10 pt)			
Steps taken to protect yourself (15 pt)			
Redefining qualities of product (25 points)			
Qualities to be/ or not be redefined (5 pts)			
Reasons for redefining or not redefining product qualities. (15 pt)			
TOTAL POINTS RECEIVED: (100 possible)			

STATEMENT FROM PARTNERS:

This project has been a joint effort from both of us. Time and effort on each individual section may not be exactly 50/50.

For this section _____'s contribution was _____% and
(name)

_____s contribution was _____%
(name)

(student signature)

(student signature)

STUDENT COMMENTS: