Name: _____

Jordan Osbourne

Activity 1.2.2 Deciphering SDS

Purpose

Safety Data Sheets (SDS) are provided by manufacturers of nearly all chemical materials. There's even an SDS for water! Safety Data Sheets are designed to provide both workers and emergency personnel with the proper procedures for handling or working with a particular substance. They include information such as physical data, health effects, first aid, storage, disposal, protective equipment needed, and spill procedures. These are of particular use if a spill or other accident occurs. SDS should be stored in an easily accessible area in the laboratory. How is the information provided on a SDS is used in a laboratory?

Materials

Per student:

- 2 SDS forms
- Pen
- *Agriscience Notebook*

Procedure

In this activity, you will read SDS forms to determine important safety and cleanup information. Use one of the forms provided by your teacher to complete the information needed for Table 1 on *Activity 1.2.2 Student Worksheet*. Use the second form to complete the SDS review questions on the worksheet. When you have completed the worksheet, answer the Conclusion questions.

Conclusion

1. When should you consult a SDS form when working in the laboratory?

   Before or while working on the lab.

2. What differences did you observe in the spill clean-up procedures for each substance?

   For LB Broth, there are no special measures required. For Calcium Chloride, you need to sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete.

3. How might your observation in question 2 impact how you handle spills in the laboratory?

   Wear protective clothing so you don't have to worry about it getting on your skin.

1. Why are SDS forms organized in specific ways?

   So if something happens you can quickly look to the section of your specific issue.

Name: _____

Activity 1.2.2 Student Worksheet

Table 1. *SDS Review Form*

	SDS Form 1
Name of Material	LB Broth
Use(s) of Material	N/A
First Aid Measures	
• Eye Contact	Rinse opened eye for several minutes under running water
• Skin Contact	Generally the product does not irritate the skin
• Inhalation	Supply fresh air; consult doctor in case of complaints
• Ingestion	Induce vomiting and call for medical help
Fire and Explosion Hazards	
• Flammability of Product	Yes
• Fire Fighting Media	Extinguishing media
Precautions for Safe Handling and Use	
• Handling a Spill	No special measures required
• Precautions for Handling and Storage	No special measures required
Personal Protective Equipment Needed	Gloves, goggles, apron, have hair tied.
Physical and Chemical Properties	
• Physical State and Appearance	Liquid
• Odor	Odorless
• Color	Colorless
• pH	Not determined
• Boiling Point	Undetermined
• Melting Point	0’C

SDS Review Questions

1. What is the name of this product?

   Calcium Chloride

2. What should one do if this chemical is spilled on skin?

   Rinse cautiously with water for several minutes

3. Should you use this chemical if you are wearing contacts?

   No

4. If this chemical is swallowed, what organs will most likely be damaged?

   The mouth

5. What is a hazard associated with this chemical?

   Acute toxicity, oral and serious eye damage or irritation

6. Is this substance flammable?

   Yes

7. Where and how should this product be stored?

   Store in a cool, dry place, such as a store in Chem-Saf^TM bag.

8. What type of protective equipment is need when handling this product?

   Wear protective gloves, protective clothing, and eye protection.

9. How should this product be disposed?

   No special way to dispose, the garage would suffice.

10. If this material spills what can be used to absorb it?

    Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete.