
AGRICULTURAL SAFETY TOPICS

SKIN IRRITANTS

Objective:

To be able to describe the hazards that can occur when solvents and acids come in contact with the skin, and to know how to prevent this exposure.

Background:

Solvents affect the skin differently. Because they are usually used to remove grease and oil in industrial processes, it is not surprising that these solvents also remove fats and oils from the skin. When this occurs, water is also lost and the skin becomes cracked and dry. On the other hand, prolonged exposure to oils and waxes can plug the skin's hair follicles and sweat ducts, causing inflammation and acne.

Dermatitis is an inflamed and irritated skin condition. There are two types of dermatitis: Primary irritation and Sensitization.

Primary irritation: Occurs from contact with a substance in sufficient quantity. Strong acids, caustics and solvents are example of primary irritants.

Sensitization: Occurs as a result of an allergic reaction to a substance. The sensitivity is usually established over a long period, and once established, exposure to just a small amount of the substance can produce a severe case of dermatitis. In addition to chemical substances, physical agents, such as heat, cold, water, sunlight and radiation, can also injure skin.

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The following chart will help you organize the session:

DERMATITIS			
Primary Irritants	Example Exposure	Duration	Effect of Exposure
Strong Acids	Hydrochloric Acids Sulfuric Acids Nitric Acids	Brief	Severe Burns
Strong Caustics	Sodium Hydroxide Potassium Hydroxide	Brief	Severe Burns
Strong Solvents	Paint Remover Alcohol	Prolonged	Inflammation Acne

Ways to Prevent Dermatitis:

- Before working with a process involving hazardous substances, make sure of the hazards.
- Read the labels on the containers and learn the emergency procedures in case an accident occurs.
- When working with primary irritants, try to avoid contact, especially when strong corrosive materials are involved.
- Use personal protective equipment, such as proper gloves, sleeves, aprons, shields and footwear, and barrier creams.

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Review The Following Points:

- Be familiar with all types of skin irritants.
- Know what substances used in your operation are dangerous.
- Know the correct procedures to follow during an emergency.
- Wear protective equipment when on the job.
- Call for help when needed.

Based upon: Ohio State University Extension. *Skin Irritants*. Retrieved from website <http://ohioline.osu.edu/atts/modules.html>

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