

Student safety sheets

Salicylic acid, aspirin, salol, oil of wintergreen

also known as 2-hydroxybenzoic acid, 2-ethanoyloxybenzoic acid, phenyl 2-hydroxybenzoate and methyl 2-hydroxybenzoate

Substance	Hazard	Comment
Salicylic acid (2-hydroxybenzoic acid) solid	IRRITANT CORROSIVE HEALTH HAZARD	DANGER: causes serious eye damage; harmful if swallowed; suspected of damaging the unborn child.
Aspirin (2-ethanoyloxy benzoic acid, o-acetylsalicylic acid) solid	IRRITANT	WARNING: Causes skin and serious eye irritation; may cause respiratory irritation; harmful if swallowed. For a 15-minute exposure, the concentration in the atmosphere should not exceed 15 mg m ⁻³ . Used as a medication to treat pain, fever, and inflammation. Aspirin given shortly after a heart attack decreases the risk of death and is also used long-term to help prevent heart attacks, strokes, and blood clots, in people at high risk. Common side effects include an upset stomach. Aspirin can be extracted from the leaves of willow trees and has been used for its health effects for hundreds of years.
Salol (phenyl 2- hydroxybenzoate, phenyl salicylate) solid	IRRITANT ENVIRON. HAZARD	WARNING: Causes skin and serious eye irritation; may cause respiratory irritation; may also be labelled toxic to aquatic life with long-lasting effects. Has a relatively low melting point (41 °C) so releases a significant amount of vapour when heated. Insert a mineral wool plug in test tubes to minimise escape of vapour and ensure good ventilation.
Oil of wintergreen (methyl 2- hydroxybenzoate, methyl salicylate) liquid	IRRITANT	WARNING: Causes skin and serious eye irritation; may cause respiratory irritation; harmful if swallowed. Used for pain relief, especially for muscles and joints where it is rubbed into the skin. Used as flavouring agent in chewing gums, mints and mouth washes.

Typical control measures to reduce risk

- Use the smallest amount possible.
- Wear eye protection.
- Ensure good ventilation.

Assessing the risks

- What are the details of the activity to be undertaken? What are the hazards?
- What is the chance of something going wrong? eg specks of solid transferred into the eye by rubbing with a contaminated finger.
- How serious would it be if something did go wrong?
- How can the risk(s) be controlled for this activity?
 eg can it be done safely? Does the procedure need to be altered? Should goggles or safety spectacles be worn?

Emergency action

In all emergency situations, alert the responsible adult immediately. Be aware that actions may include the following:

- In the eye
 In the mouth/
 In the mouth/
 swallowed

 Irrigate the eye with gently-running tap water for at least 20 minutes. Call 999/111.
 Do no more than rinse and spit with drinking water. Do not induce vomiting. Call 999/111.
- Spilt on the skin or clothing Remove contaminated clothing. Irrigate the affected area with gently-running tap water for at least 20 minutes. Call 999/111 as appropriate.
- Spilt on the floor, bench, etc Wipe up small amounts with a damp cloth and rinse it well. Brush up larger amounts, trying to avoid raising dust. Rinse with plenty of water.