

Grade 10: Acme Chemical

Directions: Use the following information to answer numbers 1 through 7.

Acme chemical is a company that manufactures products such as cleansers and salts. Recently the company developed the insecticide XYZ that does not break down in the ecosystem. Displayed in the lab of Acme Chemical are Material Safety Data Sheets (MSDS) that describe the safe handling of various chemicals and their characteristics. The information for three chemicals is displayed in Chart A below.

Chart A

Summary of MSDS Information

Chemical Name	Hydrochloric Acid	Sodium Hydroxide	Sodium Chloride
Chemical Formula	HCl	NaOH	NaCl
Other Names	Hydrogen Chloride	Caustic Soda, Sodium Hydrate, Lye	Table Salt, Halite
Incompatibles (Do not mix with...)	Strong bases	Strong acids	Lithium
Reactions	Metals	Metals	Metals
Melting Point	-74 °C	318 °C	801 °C
Boiling Point	110 °C	1,390 °C	1,413 °C
Physical Appearance	Clear, colorless liquid with acrid odor	White pellets or flakes, odorless	White granules or crystals, odorless
First Aid	Breathing: Remove to fresh air. Call doctor. Eyes: Flush with water for 15minutes. Swallowing: Do NOT induce vomiting. Drink water or milk. Call doctor.	Breathing: Remove to fresh air. Give Oxygen. Skin: Flush with water for 15 minutes Swallowing: Do NOT induce vomiting. Drink lots of water followed by diluted vinegar, fruit juices, or egg whites in water.	Breathing: Remove to fresh air. Skin: Wash with soap and water. Eyes: Flush with water for 15 minutes. Swallowing large amounts: Keep individual warm and quiet. Call doctor.