

GENERAL CHEMISTRY

STANDARD 7.2

DEFINITIONS

- **Molar Mass:** The mass of one mole of a substance
 - Usually measured in grams
 - Numerically equal to the substance's atomic weight
- For Example:
 - Magnesium has an atomic mass of 24.30 amu
 - The molar mass of Magnesium is 24.30 grams per mole

EXAMPLES

- Consider MgCl_2

- One magnesium atom

$$24.30 \text{ g} \times 1 \text{ atom} = 24.30 \text{ g}$$

- Two chlorine atoms

$$35.45 \text{ g} \times 2 \text{ atoms} = \underline{+ 70.90 \text{ g}}$$

$$94.30 \text{ g}$$

EXAMPLES

- Find the molar mass of the following substances:
 - NaCl
 - KBr
 - C₂H₈
 - Ni(OH)₂

EXAMPLES

- Find the molar mass of the following substances:
 - NaCl **58.44 g/mol**
 - KBr **119.0 g/mol**
 - C₂H₈ **32.08 g/mol**
 - Ni(OH)₂ **92.69 g/mol**