**Name: Period: Seat#:**

**S-7**

|  |  |
| --- | --- |
|  | Ethyl alcohol, molar mass = 46.08 g/mol |

The heat of fusion of ethyl alcohol, ΔHfus, is 4.98 kJ/mol.

The heat of vaporization of ethyl alcohol alcohol, ΔHvap, is 39.40 kJ/mol.

🞏 **Phase Change Equations**

Write an equation for alcohol vaporizing. Include the energy value.

|  |
| --- |
|  |

🞏 **Change on the** **Particulate Level**

If alcohol molecules looked like , draw a before and after picture of alcohol vaporizing.

|  |  |  |
| --- | --- | --- |
| **Before (liquid)** |  | **After (gas)** |
|  | → |  |

🞏 **Calculations**

How much heat is needed to boil 10.0 grams of ethyl alcohol? (Show work as a single line equation.)

How much heat is released when 25.0 grams of liquid ethyl alcohol freezes?  
(Show work as a single line equation.)