

### **Answer on Question#37347 – Chemistry – Other**

The heat required to melt a substance is calculated as

$$Q = m \cdot (-\Delta H_{fus(spec)}^{\circ})$$

$$-\Delta H_{fus(spec)}^{\circ} = 21.4 \text{ cal/g}$$

Mass of isopropyl alcohol is calculated as

$$m = n \cdot M = 1.2 \cdot 60.0 = 72.0 \text{ g}$$

Now we can calculate the heat required

$$Q = 72.0 \cdot 21.4 = 1540.8 \text{ cal} = 1.5408 \text{ kcal}$$

**Answer:** 1.5408 kcal