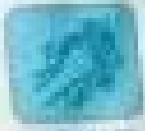


INSTANT COLD PACK

Indications For Use:



Wrist sprain/strain



Shoulder pain



Knee pain



Neck pain

CE 0123

SINGLE USE ONLY

INSTANT COLD PACK

CAUTION

- Do not apply to open wounds, burns, or frostbite.
- Do not use if the pack is damaged or leaking.
- Do not use if the pack is expired.
- Do not use if the pack is contaminated.
- Do not use if the pack is used on a child.
- Do not use if the pack is used on a pregnant woman.
- Do not use if the pack is used on a person with a known allergy to the contents.
- Do not use if the pack is used on a person with a known sensitivity to the contents.



CE

SINGLE USE ONLY

Cold Pack Temperature

A cold pack consists of NaNO_3 . When the pack breaks open the salt is released into water and causes cooling because of the endothermic reaction.

Given the enthalpy and entropy data below, what is the minimum temperature at which NaNO_3 will dissolve in water?

$$\Delta_{\text{soln}}H^\circ(\text{NaNO}_3) = +42.5 \text{ kJ/mol}$$

$$\Delta_{\text{soln}}S^\circ(\text{NaNO}_3) = +165 \text{ J/molK}$$