

Exothermic and Endothermic Uses

<u>Name:</u>	<u>Advantage / Disadvantage</u>		<u>Diagram</u>	<u>Is It Reusable</u>	<u>Exothermic or Endothermic</u>
	<u>Advantage</u>	<u>Disadvantage</u>			
Chemical Hand and Body Warmers	Also can be used for easing aches and pains, Lasts for 30 mins and produces instant heat	Sometimes only works once, Hard to activate sometimes and Small so easy to use		Some are but some aren't	Exothermic
Self-Heating Cans	Instant, Can last for a while and Keeps your coffee	Isn't reusable, Cost loads to make and Hard to find In any shops		They are not reusable	Exothermic
Cold Packs	Last for 20 mins, can help with bruises or bumps and are instant	Instant ones can't be reusable, Reusable ones aren't instant and Get wet from condensation		Instant aren't reusable and non-instant ones are reusable	Endothermic

How They Work:

Chemical Hand and Body Warmers	You click a metal tab and the liquid reacts with the clicking creating a solid object which lets out heat. Sodium Chloride ones aren't reusable.
Self-Heating Cups	You click a button and that releases calcium oxide into water which causing a reaction of calcium hydroxide releasing heat from the reaction
Cold Pack	The liquid in the ice pack is frozen in a freezer and then melts on your body over time yet takes a while