

Launch Lab: Hot Packs and Cold Packs Answer Key

Answers to Analysis Questions

1. You should address the amount of heat absorbed or released. A good hot pack will involve an exothermic reaction that releases neither too much nor too little heat. Similarly, a good cold pack will involve an endothermic reaction that absorbs neither too much nor too little heat. If too little heat is absorbed/released, then the cold/hot pack is not effective. However, if too much heat is absorbed/released, then the cold/hot pack could cause skin damage. You should also address some of the following points – cost, availability of the salt, disposal concerns (See Question 2).
2. Safety concerns that should be considered include possible toxicity concerns. As noted in the safety precautions, many salts are irritants and may be toxic if consumed. Discuss the environmental effects of disposal as well.
3. You might include some of the following points:
 - packages of various sizes
 - ease of mixing the salt and water
 - providing soft packaging