Solubility of Different Brands of Aspirin

Merzianu, Andreea (School: City Honors School)

Aspirin is an important drug in the medical field. It is used to relieve pain, reduce fever but also to prevent blood clots, lowering the risk of heart attack or stroke in people who had surgery. The harder it is for the tablet to dissolve, the less effective it will be. To test which brand dissolved quickest, seven brands of Aspirin with the same dosage were placed in separate containers in three different solutions; lemon juice, distilled white vinegar, and a borax solution. The times were recorded for each tablet that no longer appeared to hold its original shape (broke apart into sand-like particles), and observations were made throughout the process. During experimentation, the pills did not dissolve at all in the very acidic solution (lemon juice), or in the slightly acidic solution (vinegar), but dissolved within 30 minutes in the basic solution (borax). This is due to the enteric coating on all the pills, which is meant to protect the pill from the acidity of the stomach until it reaches the small intestine to dissolve in a more alkaline environment. The fastest acting brand of Aspirin was Brand A, a store brand, which dissolved in under 12 minutes, and the slowest brand was Brand G, which dissolved in 28 minutes. Finding out which brand of Aspirin is fastest acting is important because every minute counts in a deadly situation and picking a fast-acting medication can save a life.

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