

Introduction:

- Natural disasters have become common these days, safety has become man's main priority
- In recent days most of the cities have been experiencing drastic flood effect
- People require safety equipments like inflatable tube, lifeboat at the time of disaster
- This new model backpack can convert a normal-sized backpack into a lifeboat or inflatable tube based on our necessity in seconds



Contents of the Bag:

...As we cant expect the disaster at a particular time and it is difficult to inflate lifeboats and tubes in such a low time, so we have introduced an airbag mechanism in this bag

- This bag contains deflated nylon made life boat, ignition button, torch light, 130g of sodium azide (inside the lifeboat)

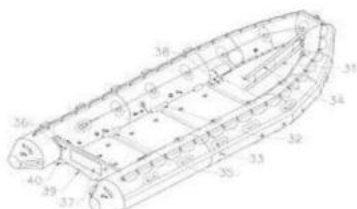


Mechanism:

- It works based on the mechanism of an airbag, which has an ignition button, which when pressed, ignites the sodium azide present in it and leads to the release of gas into the bag.



- We mix the sodium azide with other chemicals that will react with the sodium and, in turn, make less toxic compounds.

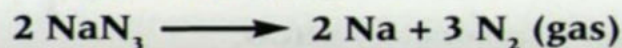


Analysis:

VOLUME: 2.3 cubic feet

FILLING TIME: 0.030 seconds

Chemical Reaction:



sodium azide

Results:

- As we ignite it, it takes less than 4 seconds for a lifeboat to inflate.



Conclusions:

- it is cost-effective and affordable and may be helpful for many people, as one lifeboat can afford nearly 4 people in it

