The Costs of Tank Fires

What does the total cost of tank fires entail? The cost of Foam, cost of extinguishment, or the cost of asset loss?



A guide for the comparison of prices between different firefighting foam products

The most obvious answer to the above question is: All of the above. However, the impacts of each on our business range drastically and affect the recovery costs and time needed after any fire incident. The following points should be taken into consideration when trying to make a decision on the comparative costs of different foam products:

1. The mixing ratio of the foam as recommended by the manufacturer.

This refers to the percentage of foam mixed with water. For example, 3 liters of foam is mixed with 97 liters of water to achieve 100 liters of the required concentration of 3% foam. Bear in mind that 3% foam has double the concentration of 6% foam and therefore we require half the amount of 6% aqueous film forming foam (AFFF).

NOVACOOL is highly concentrated and has a mixing ratio is 0.5%; i.e. you require 7.5 times less volume of NOVACOOL than the 3% foam and 15 times less than the 6% foam. (Please see page 2 of our brochure).

The price of one (1) drum of NOVACOOL should be compared with the price of 7.5 of a 3% foam product.

2. The cooling capacity of the mixed product.

All conventional foams, such as AFFF, have a cooling capacity limited to the cooling capacity of water which is why it takes so long time to extinguish hydrocarbon fires and impossible to extinguish metal fires. On the other hand, NOVACOOL has a super-cooling effect that enables it to extinguish even Magnesium fires which go up to 2400 °C. Normal foam can extinguish only hydrocarbon fires.

In the case of Novacool Magnesium fires are easily extinguished by Novacool and of course can very fast extinguish hydrocarbon fires long before any other foam product.

3. The salvage value.

Simply put, this refers to the value of assets not affected by the fire. This point is often overlooked when considering costs, but is in fact directly related to the previous criterion. If we extinguish a tank fire but find that over 80% of value or products are lost, we then appreciate that choosing a superior cooling agent is ultimately cheaper in view of asset loss.

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4. The time needed to go back into business.

Although this point can be a direct result of Criterion No. 3, other factors can amplify this factor including market competition, loss of clients ...etc. How much time can you afford to take to get back into business?

5. The presence of Perfluorooctanesulfonic acid (PFOS).

PFOS is a known carcinogenic that is found in all AFFF products. This point is of an environmental concern and may not seem relevant at this level of decision_making. However, the reality is that government authorities are becoming aware of the direct contamination and damage PFOS has caused on groundwater and its users – the general public. The cost of cleaning the soil from PFOS-containing foams can account for as much as 20 – 50% of the total cost of a fire incident.