Best Practice

How to Select a Cold Cleaning Solvent

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There are many different products available when making a decision on a cold cleaning solvent. Carefully review all aspects of your application when selecting the most cost effective one to use.

What is the Flash Point?

The Flash Point is a wide range of 10 flash solvents and solvents that have low flash points or high flash points. The higher the flash point, the less likely the solvent will ignite. Make sure that you differentiate Fahrenheit and Celsius when comparing the data. Companies often want to have the flash point of the solvent above 140°F as it is easier to ship in non-hazardous waste if the solvent qualifies.

What is the Toxicity?

Toxicity is a very important component of solvent selection. The MSDS (Material Safety Data Sheet) and review the exposure levels of the solvent. If you are looking at a solvent with a low exposure level, then consider the area where it will be used. An enclosed area like a fume hood will minimize exposure. Also, consider if gloves and a respirator are necessary. Passive/active testing will point in confirming the exact levels of exposure.

Does the Solvent Have a Strong Odor?

When you change to a new solvent, the new solvent will often smell stronger than the old solvent. Make sure you use the product if it will be used in an open area. Again, a fume hood or enclosed area can reduce the amount of odor that is noticeable.

What is the Evaporation Rate?

This is an important part of the process. If the evaporation rate is too slow, it might slow down production or take too much time to clean your part. A solvent supplier will usually have comparison charts that compare the evaporation rate of the product they are offering. Compare this rate to what you are currently using.

How Strong is the Cleaning Power?

It is important to consider the solvent you want to use will clean your parts sufficiently. You can compare the KB (Kleen bean) value as a guide on the solvency power. The higher the KB value, the stronger the cleaner. Testing the product to see if it meets your needs is recommended.

What is the Cost of the Solvent?

Decide on how much solvent you will use per month and calculate the cost. You may find a solvent that works for you will be too costly if a large amount of solvent is involved. Again, there are ways to reduce your usage like cleaning in a vapor degreasing or using a small still to reduce the solvent to help you justify the cost. Also, the disposal cost of the solvent must be considered— is it hazardous or non-hazardous, and what is the cost?

How is the Product Classified from a Regulatory Standpoint?

Is it a VOC (volatile organic compound) or a reportable solvent? Are there maximum amounts you can use per month or per year for your application? Review your regulatory needs for the solvent you are considering.

The questions above should be considered carefully when making a decision on a cold cleaning solvent. There are so many different products available, review all aspects of your application when selecting the most cost effective solvent to use.