General guidelines for the use of Nederman Carbon filters

Since we are more and more entering chemical applications and often receive questions regarding the carbon filters, we have gathered some general guidelines - please find the information to the right.

The guidelines concern the following filters:
MFS Carbon Filter, FilterCart Carbon and the filters to the Bench Top products.

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We get many questions on Nederman carbon filters. The questions usually concern which chemicals can be used and which can not be used.
Therefore we have made guidelines to make the work a little easier how to sell this type of products.
This information concerns all Nederman carbon filters, used in MFS, FilterCart Carbon, Extractor Kit 1000-3000 and TX 2000.

1. The filters are mainly designed for organic solvents. Non organic chemicals and acids can seldom be filtered efficiently.

2. The solvent(s) should have a molecular weight over 50. Lighter molecules will not be absorbed very well and the life time of the filter will be very short. Very light molecules will not be absorbed at all. The molecular weight is found on the data sheet for the chemical.

3. The filters may not be used with toxic chemicals. There are two reasons for this. The extractor arms can not capture 100% of all fumes and a filter that is saturated may blow toxic chemicals in the air. This may harm the operator.

Unsuitable chemicals are marked with this symbol:

4. The solvent(s) must have a clear smell, as we depend on the smell to detect that the filter is saturated.

5. The concentration must never be so high that there is an explosion risk. To high concentration will also make the filter life time very short.

6. Life time: You can not measure pressure drop over a carbon filter to calculate the life time. A saturated carbon filter will have the same pressure drop as a new one.

The carbon can absorb 10-25% of its weight before it is saturated, so one way to determinate is to weigh the filter and compare the weight between a new and saturated filter.

If you know the concentration and the air flow this can be used to estimate the filter life.

7. When you are calculating MFS carbon filters, always make sure that the airflow does not exceed 500 m^3/h. Higher airflow will decrease the filtration efficiency.

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