How do I clean my Evacuable Die?

The Atlas Evacuable Pellet Dies are made from a grade of stainless steel 440C. If subjected to mineral acids (such as HCl) for prolonged periods then it will be attacked.

For cleaning of the dies, it depends on the sample type being used inside the die and how it is being compressed as to the type of cleaning solvent(s) that might be needed to remove any solid material residues. However, Specac believe that, typically, most 13mm dies are used to prepare KBr discs with a solid sample for IR spectroscopy and if this is the case a recommended procedure is as follows.

Clean the die body, two inner pellets and plunger (i.e. any of the parts that have potentially been in contact with the powder sample) with clean water or distilled water at room temperature. Dry these parts with a tissue or soft cloth (so as not to damage/abrade polished surfaces of the pellets) and then wash the parts again with methanol. Redry the parts with a clean tissue or

soft cloth. The idea is that the water wash will remove any inorganic salt (KBr) deposits and then the methanol wash will remove further inorganics and most organic trace components (if say a pharmaceutical sample had been prepared). If the die is not to be used for a while, place in a dry and warm environment to prevent any build up of moisture.

If many KBr disc samples are to be run, it can be best to have a couple of die sets to "rotate" during the preparation and cleaning procedures. Whilst one die is being cleaned and is drying on a warming plate, another die is being used for sample preparation and compression in the press.

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