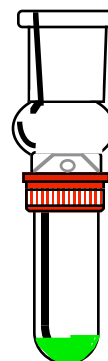
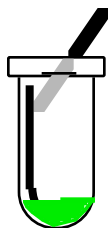
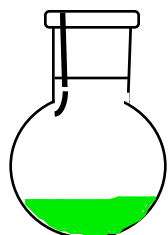


NDS Technologies, Inc. Microwave Vial Adapter System (Application and Features / Benefits Information)

Basic Concept of Process (Pre-Reaction)



1) Solid Starting Material

2) Microwave Vial

3) Microwave Vial Adapter

- 1) Dissolve solid starting material in volatile solvent to insure complete transfer of product.
- 2) Pipette dissolved starting material into microwave vial.
- 3) Connect microwave vial to adapter system. Concentrate starting material (removal of volatile solvent) by means of rotary evaporator process (controlled temperature and reduced pressure).

Once the starting material has been concentrated, the microwave vial would be removed from the adapter. Any additional reactants would then be added, and the vial would be crimp-sealed, and run through the microwave process.

Pre-Reaction Adapter Benefits

The Microwave Vial Adapter system provides a means for a complete transfer of reactants directly to the microwave vial. This adapter allows the concentration of the pre-reaction starting material by means of a rotary evaporation process as described above. By using this adapter system, 100% of the concentrated starting material is retained in the microwave vial with no product loss.

Current pre-reaction compound preparation calls for concentration of starting material in a round bottom flask. The solid compound must then be scraped from the walls of the flask, and transferred to the microwave vial. Some loss of product can occur in this step. This potential loss of material can be critical, especially when there is only a small amount of starting material available.

Post-Reaction Benefits

Once the microwave reaction process is complete, any remaining solvents or reactants can be further removed by the rotary evaporator process.

Additionally, the standard tapered joint utilized by the adapter system provides a direct connection of the microwave vial to other types of vacuum sources, such as a manifold. This allows the sample to be dried by use of other vacuum sources. It also allows the use of a drying gas (such as nitrogen) through the manifold system.

NDS Technologies, Inc. Microwave Vial Adapter System

(Benefits Information) Features / Benefits:

- Adapts to all sizes of standard microwave vials utilizing a crimp-style finish.
- Saves Time
- Standard taper joint design provides direct interface with rotary evaporator.
- Potentially eliminates the need to transfer reaction compounds from preparation flask to microwave vial.
- Provides ability to concentrate sample directly in microwave tube.
- Unique insert design greatly reduces bumping of solvents under vacuum conditions. Allows sample to drain back into vial.
- Flexible - can be adapted to other sources of vacuum or drying gas systems that utilize standard tapered joints (i.e.: vacuum manifolds)

1052- Microwave Vial Adapter to Rotary Evaporator

Article No	Top Joint	Thread Size	Price (ea)
1052-00	24/40	GL-25	148.75

Parts

1052-10	Glass Adapter 24/40- GL-25	Glass	66.25
1052-12	Bump Trap	PTFE	64.60
1052-14	Cap, with Slot GL-25	PBT	18.90