

# Health & Safety Notice

## DEWAR (VACUUM) FLASKS

With respect to the Health & Safety at Work Act (enacted by law in the UK), a duty of care is placed upon all manufacturers, suppliers, employers and employees to ensure that goods and products are safe to use, without undue risk to the health and safety of those so manufacturing and using the parts, materials or products. We therefore recommend care to be taken in the use of Day-Impex **Dewar** flasks. Any product utilising a vacuum within its construction constitutes a potential safety hazard and should therefore be treated with care and consideration.

## IF IN DOUBT CONSULT YOUR H & S OFFICER/ SUPERVISOR/MANAGER

The information given below may assist you in the use of **Dewar** flasks for the purpose of Liquid Gas storage:

1. When personnel are to transfer liquid gases into or out of **Dewar** flasks they should be protected by wearing suitable eye protection, insulated aprons and gloves (adequate for low temperature handling).



FIRE



HYGIENE



ANIMAL



TIME



SCIENTIFIC

2. It should be understood that it could sometimes be hazardous to pour liquid gases into a **Dewar** flask without pre-cooling it. When pouring liquefied gases from one container to another, the receiving container should be cooled gradually to prevent splashing, the receiving vessel should always be vented to the atmosphere. High concentrations of oxygen and/or nitrogen should not be allowed to build up.
3. If liquid gases are being used (or other substances of extremely low temperature) it is hazardous to use bare glass-stirring rods to mix or agitate the substances in a **Dewar** flask. It is advised that rods with P.T.F.E. or some other form of protective coating are used.
4. If a **Dewar** is used bare (i.e. glass only without protective outer metal/plastic container) it is advisable to apply strong adhesive tape to the outside of the flask, or to cover the flask with mesh. This will minimise the risk from flying particles of glass should the **Dewar** be broken.
5. **VENTING**
  - All DILVAC Dewar Flasks in stainless steel containers have vented lids to prevent the build-up of gas pressure when holding a gassing substance. The ability of the vent to release pressure should be checked periodically (for blockages etc).
  - If a mild steel container (MS Series) is being used, care should be taken to ensure that the lid is not fixed to the container body with straps or adhesive tape etc, which will prevent the lid from lifting with gas pressure (if needed).
  - All glass Dewar, flasks with or without containers, should not be covered with any fixed or heavy object, which might form a tight seal around the rim, either naturally or induced.

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