

Safe Packaging for Hydrazine

Lansdowne Chemicals Ltd, a medium sized chemical company, are the UK market leader in Hydrazine Hydrate.

Hydrazine Hydrate is a colourless liquid that is used in chemical manufacturing eg. agrochemicals, pharmaceutical syntheses and as boiler feed water treatment. It is classified as toxic, corrosive and dangerous to the environment. In the Seveso II Directive 96/82/EC, Hydrazine Hydrate was brought underneath the scope of thresholds relating to Carcinogens. Exposure to Hydrazine Hydrate by inhalation may cause carcinogenic affects. The chemical is toxic via ingestion or absorption.

Lansdowne specialises in Hydrazine Hydrate dilutions and nitrations. They supply the product mainly to power stations, where it is used to treat boiler feed water, acting as an oxygen scavenger to minimise corrosion. The company has invested heavily in safety equipment, chemical handling and storage systems in order to be compliant with COMAH regulations, which refer to the quantities and concentrations of hazardous chemicals that can be stored at a specific site.



25L Warlord-CF with Micro Matic Valve



25L Warlord-CF palletised and on racking waiting for dispatch

Lansdowne Chemicals is keen to demonstrate its long term commitment to supplying Hydrazine by installing a new modern dilution facility. To support such a project the company has also had to invest in safety equipment and new chemical storage.

Francis Ward Limited's new 25L Warlord-CF drum was approved to supply small batch quantities of Hydrazine. The Warlord-CF is a reusable UN accredited drum designed for the storage and transportation of hazardous chemicals. The drum was designed to improve operator safety, storage efficiency and environmental integrity.

Stuart Alexander - Product Manager Aroma & Performance Chemicals stated, "The Warlords were a fantastic find for Lansdowne. Due to our emphasis on product development, we changed to the Warlords over standard 25 kg polycans due to their superiority in terms of safety and handling. Along with the Micro Matic valve, it has reduced levels of exposure to Hydrazine Hydrate. We estimate that such products will allow us to achieve a return on the investment in 2-3 years."

The drum has a central inlet that is fitted with a Micro Matic valve from IPI Global Ltd. The valve is what is known as a Dry-break valve that has to be connected to a Dry-break coupler to access the Hydrazine. The Dry-break coupler is then attached to a pump mechanism to discharge the contents. The benefit is a complete closed transfer system where operators do not come into contact with Hydrazine fumes or Hydrazine spills.

This system also prevents against contamination of the drum with no external goods able to enter through the valve.

The Warlord-CF Drum it is rotational moulded. This creates a seamless drum with virtually no built in stress. The benefit is a very durable drum that will withstand the rigors of industrial use, so alleviating health and safety concerns. The container will have a lifetime of 5 years, whereas blow moulded containers achieve on average 3 trips before needing to be replaced.

Warlord-CF Features and Benefits

- **Rotomoulded**
To provide a robust durable drum with a long service life

- **Square round form**
Provides stability when stacked and maximum utilisation of space on a pallet

- **Ergonomic hand grips**
To ease manual handling

- **Centre fill inlet**
For closed discharge system, minimal operator exposure to contents
Tri-sure® threadform enabling customised fittings and pump attachment

- **Micro Matic® valve**
High quality stainless steel dry break coupler, preventing operator exposure to contents
Air allowed back into the container preventing implosion

- **Dip Tube**
Spring loaded to ensure maximum discharge

- **Central sump**
To allow maximum drainage and extraction

