

SOLVENT EMULSION DEGREASERS VERSUS WATER BASED DEGREASERS

Traditionally degreasers or degreasing fluids have been based on HYDROCARBON SOLVENTS. The reason being simple "like solvents like" and greases is HYDROCARBON BASED.

Whilst solvents are not the only method of removing greases they are non- the less a very effective method but are both hazardous and environmentally damaging.

The last decade has seen a move worldwide away from hazardous and environmentally damaging chemical systems to safer less hazardous ones.

Solvents can be classified as both the above for the following reasons:

1. SOLVENTS ARE FLAMMABLE

This renders them unsafe for applications in confined spaces where they could be considered explosive. It also renders them unsafe where heat and / or naked flames are present as they present a **fire risk**.

2. SOLVENTS ARE TOXIC

Not only do solvents present an inhalation hazard but they are also responsible for de-fatting of the skin and various skin disorders such as Dermatitis. They can also be responsible for neural and liver damage.

3. SOLVENTS ARE ENVIROMENTALLY HAZARDOUS

Solvents are hazardous **to ECO systems** such as waterways, agriculture land etc. for both of the above reasons.

4. SOLVENTS ARE DAMAGING TO ORGANIC SYSTEMS

Solvents as their name suggests have solvency for a number of organic systems and are thus responsible for softening paint, plastic, etc.

THE PRODUCT – ECO KLEEN

This product is an effective degreaser of moderate and heavy greased based oils not relying on solvents but on other components for its degreasing action.

Generally water is used as a vehicle for transportation of grease away from the site requiring degreasing. Unfortunately water is inorganic in nature and grease is Hydrocarbon or organic based.

To effectively remove grease with water based products there has to be a marriage of these two radically different chemical systems. This can be affected in two ways:

The first is to transform the organic grease into an inorganic salt. This requires saponification (soap making). High alkalinity or caustic components react with grease to make soap or organic salts, which then readily dissolve in water.

The second method is to use substances that hold onto both organic and inorganic ones thus acting as bridging compounds. These chemicals are classified as surfactants.

ECO KLEEN uses a combination of both the above having moderate alkalinity and a highly sophisticated Surfactant System for effective grease removal.

CONCLUDING:

ECO KLEEN is a non-toxic non-flammable environmentally friendly degreasing fluid that is able to match or surpass solvent emulsion degreasers and as such heralds the arrival of the next generation product(s) for the ECO Conscious millenium.