Lanolin – The Incitec Story {by Brendan McGuffin}

1.0 Background/ History

For the past 18 years I have worked in a Chemical Manufacturing Plant that produces fertilizer and industrial chemicals. My initial 14 years was spent as a Technician within a Nata Lab. that conducted all forms of NDT Inspection work. Following this I turned to Maintenance Planning within an area of the facility that is responsible for the storage and distribution of product. The facility is surrounded by a river and creek and is located approximately 5 kms from the river mouth. Due to the location and the function of the facility there is obviously a high corrosion rate of assets/ investment.

2.0 Existing Culture

My 18 years to some may seem like a long time but I am junior to some of the employees who have 30 years plus experience on-site. With the long-term issue comes existing cultures in anything one does, is it work or play. Therefor over the years as new products were developed they were added to store inventory in all shapes and sizes. As you could imagine numerous oils, greases, lubricants, rust preventives were used by a maintenance team for which I am the Planner. Each product within the main store has a specific use and each person had their favourite "magic spray or squirt" for anything from a rusty old chain to a million dollar piece of technical equipment. Some afternoons the workshop became a concentration of aerosols which were obviously inhaled and absorbed into the skin. Associated costs and health concerns guided me to find an alternative replacement product.

3.0 Trials

I contacted some colleges in related industries to look for the cure. An approach was then made to Mr Geoff Boyle from Lanotec to discuss alternative measures that may offer a solution to some of the issues that exist in my current area of responsibility. Immediately after a brief discussion I was aware of areas where the product could be very useful. {I had both my Maintenance Planners' and Protective Coating Co-ordinators' hats on at this stage.} Geoff suggested that 8-10 products that were currently being used could be replaced with 2-3. Reducing the product range available to the technicians was now secondary to the added associated health benefit to the workers.

Lanotec HD-21, GP-21 Liquid Lanolin, the Type A grease and the Citra Force were purchased for trial in a number of applications around the facility.

- As a general purpose lubricant
- As a general purpose rust preventive
- Internal tank coating
- Under and associated with epoxy coatings
- As a general cleaning agent

Initially, just like any new idea or product a change process is often experienced by those who are the ones trying to do the introduction. Some workers when confronted with "change" often go into a denial process, but with some minor attitude adjustments the Lanotec has been greatly accepted by all who have used it.

4.0 Results

4.1 Lubricant

Lanotec HD-21,GP-21 and Type A grease was introduced as a general purpose lubricant to be trialed on various applications around the facility. Some of the applications are listed below

- wharf winch ropes, chains, pulleys and rollers
- conveyor components such as chains and guides
- lifting equipment including chains, slings and chain blocks
- workshop tasks around drills and lathes

- during electrical overhauls
- production line areas such as rams and guides

The HD-21 product was mainly used with the aid of a hand spray applicator, although a general purpose garden spray backpack has been introduced to further increase the benefits to the worker.
The technician involved with most of the trial applications was immediately impressed when he saw the abilities of the product. In my role I have seen the increased life expectancy of the equipment and the associated cost benefits to the company. The health benefits also have a flow on effect to the worker and the environment.

4.2 Rust Preventive

Lanotec HD-21,GP-21 and Type A grease were introduced as a general purpose rust preventives to be trialed on most of the equipment previously mentioned in this report. The general condition of items that the product has been trialed on appears to be good considering the environment that some of the equipment is located in. Again, the technician and I were immediately aware of the capabilities of the product. Equipment life expectancy has now increased due to the use of this product.

4.3 Internal Tank Coating

In my role as the Protective Coating Co-ordinator, I was asked to nominate a specification for a particular tank that was to be refurbished. This task is normally managed by a 3 coat epoxy type system as per existing company standards. Through some of my contacts in the protective coating industry I was informed of a client who had a very similar process that had recently refurbished his tank internals with a Lanolin based product. On further investigation a simple 2 part mix was sold as the coating being effectively Lanolin and mineral turpentine product. I then spoke to Geoff from Lanotec and the selected protective coating contractor and the product was selected for our application also. Many hazards were removed from the work scope with the use of Lanolin HD-21 instead of the traditional epoxy systems. The cost of the project in this area was reduced by approximately 75% and that's not to mention the reduced turnaround from 10 to 2 days. What cost could this be to your business?

4.4 Under and associated with Epoxy Coatings

Sometimes there is a need to "hold" a blasted area or surface without the expensive application of the selected coating specification. With this in mind a series of trial plates were developed to test a couple of theories I had been contemplating. Four test plates were abrasively blasted to a Class 2.5 standard. Lanolin HD-21 was applied to three of the pieces, one at ambient temperature, one with the steel preheated and the last in an air-conditioned office. After application of a general epoxy, all test pieces appeared to be in good condition visually. This amazed most representatives of coating companies. I knew the real test would be in the adhesion testing that I was to preform when the adequate curing time had lapsed. The average "Pull-Off" was recorded as 600psi across the test items. I have been involved with many adhesion tests on various projects and these results were very positive for the potential use within the protective coating industry.

4.5 As a Cleaning Agent {Citra Force}

A very powerful concentrated cleaning agent that can also be diluted for other specific needs. More environmentally friendly than alternative products. No residues were noted.

5.0 Advantages

Cost savings

- reduced holding stock as this product replaces 6 previously used items
- reduced turnaround of equipment
- increased life expectancy of plant and equipment

Health benefits

- associated health benefits to workers who choose to use the product with the reduced amount of aerosols being absorbed through lungs and skin

Environmental

- associated benefits to the environment

6.0 Recommendation

I have no hesitation to recommend Lanolin HD-21 as a product for use in any facility or home. The product is currently being nominated for use by contracted service personnel for use on our Fleet Machinery including fork-lifts and front-end loaders. Once you start using it, you to will also see the benefits it has offered to this organisation and in a very short time. So give the product a try today as tomorrow is another day away from the potential answer to your problems –
LANOTEC LANOLIN and associated products.

Yours Truly,
Brendan McGuffin
Maintenance Planner and Protective Coating Co-ordinator,
Logistics Services working for Incitec Fertilizers.