Statement of Formulation Integrity

Red Star Laundry Powder is a proprietary brand and formulation, so we cannot totally disclose 100% of what is in Red Star, nor how we blend it.

We can however ensure you that the formulation is independently tested and is amongst the lowest in all trace elements associated with environmental degradation.

It is not commonly understood that having very small amounts of phosphate in laundry powders allows exceptional cleaning performance and is often kinder to the environment than the building agents and fillers used to replace the phosphates. The small amount of phosphate used in Red Star (<.02%) is actually food grade and readily degradable. The percentage of phosphate use is below the Australian Standards considered environmentally responsible.

Of bigger concern is the extremely high levels of 'fillers' in laundry powders - It is usually Sodium Sulphate. Salt is very bad for soil, waterways, your washing machine, and the insoluble particles are linked to skin and bronchial sensitivities. Red Star is independently tested and is **35 times lower** in these type of salts than the leading brands.

Red Star's primary ingredients are Sodium Carbonate, bio detergents and a blend of bio surfactants with organic essential lavender oil – NOT a synthetic fragrance.

No - Fillers, Zeolites, SLS, Enzymes, Petrochemicals or Palm oil are used.

Red Star does not test on animals and is 100% Australian made and owned with the exception to the Laundry Leaf Wash as a specialized machine is needed and only China has this equipment.

We encourage the CSI (Clean Scene Investigation) test to see if your current brand of washing powder contains fillers. Fillers do not dissolve and have adverse effects, not just for the environment but also for those with skin and bronchial sensitivities.

The CSI (Clean Scene Investigation) test is quite simple.
Add a teaspoon of your current laundry product and add it to a large glass of water and stir rapidly.
You will see if your laundry powder dissolves 100% in water.
The added fillers in laundry products (that can irritate your skin and airways) make the water cloudy and will leave powdery granules that has settle at the bottom of the glass.
Let it to stand so you can observe that the residue doesn't dissolve over the hours, days, weeks or even years. That white residue remains forever.
These particles become trapped in your fabric and this is what causes skin irritations and bronchial irritations. It also corrodes and blocks your washing machine and is harmful to the environment when flushed down the drain.
Just this test on its own should change your mind on what to look for in a washing powder.

Powder Laundry Detergents

What did we test?

Lanfax Laboratories purchased laundry detergents powders from supermarkets in Armidale, NSW (during late 2008) and a few samples were supplied, without charge, by various individuals to total 71 powders.

Samples of each of these products were mixed at two rates: one specifically for front loading washing machines (25 L); and one for top loading washing machines (60 L) to simulate the wash cycle of a normal wash program.

The rates of detergent were calculated from weighed samples of a known volume from a freshly opened packet and mixed at the manufacturer's recommended dose for a normal wash.

The samples were mixed with rainwater at the chosen dose and agitated for 30 minutes to replicate washing action. Samples were tested within one hour for pH and salinity. Other tests followed normal good laboratory practice.

Why carry out the tests?

The quality of greywater from domestic dwellings is a cocktail from the numerous chemicals used in the home for personal and general cleaning. Perhaps the greatest use of chemicals is in the laundry where modern detergents are used at rates from a teaspoonful per wash to 1½ cups per wash. Manufacturers have their formulations and marketing strategies that mostly fail to address the problem of potentially hazardous chemicals. The impacts of pH, salinity, sodium, phosphorus and sulphur are not addressed in advertising. Most product labels don't state the ingredients, so astute purchasers can never be sure what is actually in the product. More importantly, very few even let you know how many washes in a packet. This research set out to address some of those shortcomings.

These data are not an endorsement of any product. ***Lanfax Labs*** has a policy of not endorsing or degrading any product.

No "safe in septic" standards or acceptable guidelines exit, and no laundry product can be "environmentally friendly".

The term "biodegradability" can only apply to the organic components of a powder detergent. When the detergent has a positive reading for Electrical Conductivity, you know immediately that inorganic components are included so the product cannot be "100% biodegradable".

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Commercial and Research Laboratories with special expertise in analysis for:

Domestic On-site Sewage Treatment
Laundry product testing
Greywater reuse
Effluent irrigation
Wastewater treatment
Environmental Monitoring
Soil and Landscape Assessments
Environmental Engineering

Principal Scientist:

Dr Robert Patterson FIEAust, CPSS, CPAg

NOTE: Product formulations may have changed since this research was undertaken. Lanfax Labs has no way of knowing which products may have changed and manufacturers have no requirement to advertise formulation changes to the public.

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Laundry Detergents

Research Results - 2009

Front Loading & Top Loading Powders