



**PREVENTION OF SCALING  
ON HARD WATER AREAS**

**A SIMPLE COST EFFECTIVE SOLUTION BY  
HYDRAMET USING CALGON® SHMP**

**A PATENTED PROCESS**

**PATENT NO. 784535**



# The CALGON® SHMP Process

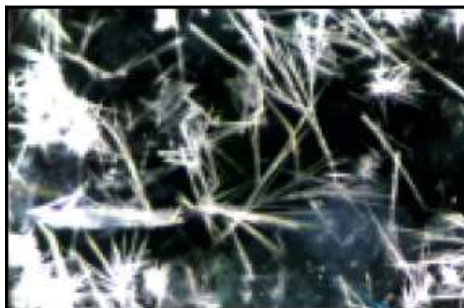
The Key effects of hardness in water (above 200mg/L as CaCO<sub>3</sub>) are:

- > Calcium scaling in electrical appliances; and
- > Increased soap consumption

The **CALGON**® SHMP Process addresses the scaling problem, which is the issue of most concern to customers, being the factor with a high cost implication.

**CALGON**® SHMP (Sodium Hexametaphosphate) when dosed at extremely low levels, prevents scale formation.

**CALGON**® SHMP dosing does not affect the taste of water and is approved by the National Health and Medical Research Council in Australia, for use in water treatment.



Crystal Formation Untreated



Crystal Formation **CALGON**® SHMP Treated

**CALGON**® SHMP prevents calcite crystal growth, allowing the calcium to be maintained in a soluble form when water is passed through household appliances.



Hot Water System without **CALGON**® SHMP



Kettle without **CALGON**® SHMP



Hot Water System with **CALGON**® SHMP



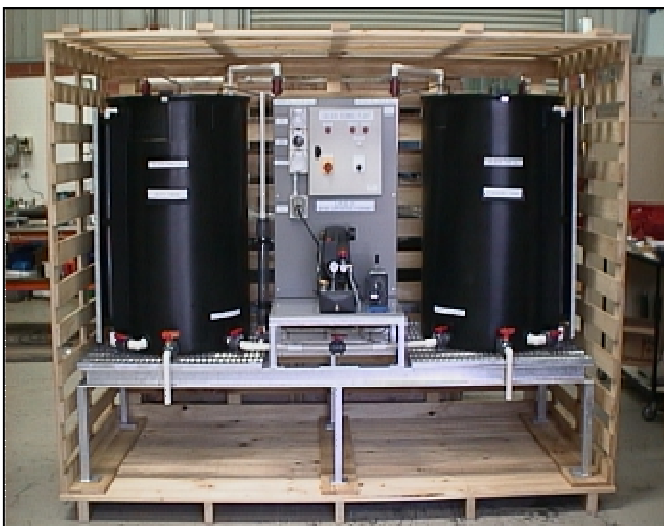
Kettle with **CALGON**® SHMP

# Supplying a Technology Package to Customers

Hydramet Pty Ltd has acquired the Calgon Process Technology Patent from Water Corporation in Western Australia thus allowing Hydramet to provide an integrated technology package to customers. This package in all respects is conceived to meet the specific process requirements of each customer.

This includes:

- > Water treatment expertise in this and other treatment processes.
- > Technical presentations in regard to the process.
- > Scientific analysis in different waters for optimisation of **CALGON**<sup>®</sup> SHMP dose rates.
- > Provision of integrated batching and dosing plant together with operation and maintenance procedures and manuals.
- > Installation and commissioning of the plant.
- > Subsequent audit of dosing rates to ensure optimisation of dosing for scale prevention.



## Cost of CALGON<sup>®</sup> SHMP Process

The **CALGON<sup>®</sup>** SHMP Process is a very cost effective method of scale prevention, compared with the cost of full softening.

The chemical cost is approximately 0.3—0.4 cents/kL.

Batching and dosing plants have small manning requirements.

Detailed capital and operating costs can be calculated for each specific application.

## Application Experience

**CALGON<sup>®</sup>** SHMP Process plants have been installed at many locations in Australia including;

- |                    |                       |                    |
|--------------------|-----------------------|--------------------|
| > Augusta (WA)     | > Yanchep (WA)        | > Menzies (WA)     |
| > Esperance (WA)   | > Two Rocks (WA)      | > Wiluna (WA)      |
| > Albany (WA)      | > Newman (WA)         | > Meekatharra (WA) |
| > Millstream (WA)  | > St Marys (Tasmania) | > Sandstone (WA)   |
| > Halls Creek (WA) | > Leonora (WA)        | > Cue (WA)         |
| > Laverton (WA)    | > Yalgoo (WA)         | > Mt Magnet (WA)   |
| > Pithara (WA)     | > Alice Springs (NT)  |                    |

Very positive customer feedback has been obtained, together with lowered customer costs for plumbing maintenance and electrical power costs.

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