# Oxypower LF Technical Bulletin

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Issue Date: April 2014

## **Description and Use**

Oxypower LF is a new destainer and sanitiser designed for use in wineries where chlorine bleaches are not being used. Oxypower LF is designed to bleach and sanitise filling equipment and lines, and is also effective at brown film removal in tanks.

### **Features and Benefits**

Oxypower LF is a moderately alkaline powder that releases peracetic acid when made up in solution. It is much safer to use than liquid sources of peracetic acid that can burn the skin and have a pungent odour.

The oxygen bleach and peracetic acid combine together to give excellent cleaning, bleaching and sanitation.

Oxypower LF contains no chlorine, and so is recommended for use by wineries that wish to move away from chlorine bleaches, but still maintain equipment in a clean state without staining.

Oxypower LF is low foaming for maximum effectiveness in CIP applications, easy rinsing and prevention of foaming in effluent ponds.

#### How to Use

Oxypower LF is used to sanitise and bleach cleaned surfaces. Flush any wine out of the system and rinse with water. If tartrates or other soils are present clean first with a product such as BWP or BWL, then rinse to give a neutral pH before proceeding.

Use Oxypower LF at dilutions from 3-5 g/L making up the solution by sprinkling the Oxypower LF into the water as it is being added to the mixing tank, and mixing till dissolved. Run the Oxypower LF through the filling equipment and lines and circulate for at least 20 minutes to allow time to destain and sanitise. Dump solution, and then rinse with clean water.

To clean brown film from tanks add enough water to the tank to allow circulation, and add 3 - 5kg per tank Oxypower LF. Circulate for at least 30 minutes, dump solution and rinse.

Always close drum lid when not in use to keep moisture away from the Oxypower LF as the strength will drop if the product becomes affected by moisture.

#### **Technical Data**

Oxypower LF is an alkaline powder containing an oxygen bleach and activator. When made up in solution in cold water it releases peracetic acid for enhanced bleaching and sanitation. The peracetic acid level reaches around 150ppm after 5 minutes, about 220ppm after 20 minutes and reaches its maximum of 240ppm after about 60 minutes for a 3g/l solution. The solution strength is maintained around this level for up to 3 hours allowing plenty of time to use the solution. The solution then slowly loses strength so should be dumped after 3 hours. The 5g/L solution has a maximum level around 400ppm of peracetic acid.

If made in warm water (40°C) the peracetic acid is released faster and starts to drop off after about 150 minutes.

Oxypower LF has a pH around 8.8 at a 1% solution. When made up at normal use dilutions the pH starts around 8.7 and slowly drops as more peracetic acid is released.

Oxypower LF has been independently tested against a range of bacteria and yeasts found in wineries by Silliker Microtech.

Oxypower LF was tested at a use dilution of 3g/L made up at 20°C with a contact time of 20 minutes using the principles outlined in BS EN 1276:1997.

It gave a >log 5 reduction against the following bacteria:



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Oenococcus Oeni – South Australian Wine Research Institute Lactobacillus brevis – derived from ATCC 14869 Pediococcus pentasaceus - South Australian Wine Research Institute

Oxypower LF was also tested against Brettanomyces bruxellensis - South Australian Wine Research Institute using the same conditions as above using the principles outlined in BS EN 1650:1998. It gave a >log 5 reduction.

Saccharomyces cerevisiae is more difficult to kill. Using the principles outlined in BS EN 1650:1998 at 5g/L made up at 20°C and a contact time of 20 minutes, Oxypower LF achieved a log reduction of 4.6. This test had an initial count of 2.8 x 10<sup>6</sup> organisms per ml which is far higher than levels expected on a cleaned surface. A retest using an inoculum of 2.5 x 10<sup>4</sup> organisms per ml and a use level of 3g/L gave a > log 4 reduction.

If the winery is experiencing problems with contamination with Saccharomyces cerevisiae run an extra cleaning cycle to physically reduce numbers or use Oxypower LF at 5g/L

Do not use on equipment containing copper or brass.

## **Testing Solution Strength**

The peracetic acid level can be monitored using either test strips, or for greater accuracy by titration.

Use Merckoquant 1.10001.0001 Peracetic Acid test strips 100 – 500 mg/L. These strips are affected by the alkalinity of the solution. To obtain an accurate reading take a 5ml sample and add 4 drops N/1 sulphuric acid to acidify. Then dip strip and read result.

#### **Pack Sizes**

15kg bucket Code: 14208

### **Dominant Colour Code**



#### **Hazard Information**

Not classified as hazardous according to Safe Work Australia criteria

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Poisons Schedule: Not classified Dangerous Goods: Not classified

## Safety

Handle carefully to avoid creating dusts. Wear gloves and safety glasses when handling.





