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Technical Bulletin

Oxybrite

Alkaline Percarbonate based Wine Tank and General Cleaner

Product Description:

OXYBRITE is an alkaline percarbonate based powdered wine tank cleaner and general cleaning detergent. A free flowing off white powder blend of mild, alkaline salts along with low foaming high activity surfactants, powerful chelating, water conditioning and anti corrosive materials.
OXYBRITE is specifically formulated for use in wineries requiring oxygenating cleaning systems to improve the quality of oxidative cleaning.
OXYBRITE is powerful yet economical product for stainless steel tank cleaning and tartrate / red wine staining / protein deposit removal.
OXYBRITE is an oxygenated low foaming cleaner designed to clean stainless steel and be safe for use on glass, plastics and ceramics.
OXYBRITE is environmentally friendly and safe to handle.
OXYBRITE is suitable for use with pressure sprayball 'CIP' tank washing systems and procedures.

- One step concentrated product, eliminates neutralisation step required with highly caustic cleaners.
- Powerful surfactancy provides superior cleaning and hygiene via reduced surface tension, thus providing free rinsing.
- No neutralisation and free rinsing; provides water, energy and time savings.
- Highly soluble, fast dissolving and hence reduced mix / preparation time.
- Active powerful detergency, yet low foaming formulation. Fast draining.
- Excellent OH&S profile, non-DG (Australian Dangerous Goods Code), non-toxic, specifically formulated with HACCP programmes in mind. Safe to mix, nondusting, and no splash hazard like caustic based cleaners. Non-fuming / vapours in use, non-flammable and safe to mix and use in hot or cold water.
- Effective action at 25ºC aqueous solution and improved speed at 50 -60ºC and /or lower concentration for even more positive environmental profile.
- Effective and safely cleans wine tartars and stains as an aqueous solution whilst being essentially non corrosive to stainless steels, galvanised surfaces, plastics, glass, aluminium and most painted surfaces.
- Non-tainting formula, surfaces left clean, streak and spot free following fresh water rinse.
- Excellent environmental profile, wastewaters contain no, chlorine. Reduced B.O.D. compared to caustic and significantly less sodium discharged
- 100% active formulation, reduced inventory, less shipping weight (water)

Application:

Solubility Notes: OXYBRITE dissolves very rapidly in hot water, 1 ½ minutes at 60ºC (2.0%) and quickly at ambient, 4 minutes at 25 ºC (3.0%). However the dissolution rate of OXYBRITE does drop with lower water temperatures.

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When to use OXYBRITE: Timing of use of OXYBRITE will optimise product effectiveness and minimise costs. Following cold-stabilisation, when wine has been drawn down from tank, it is important to allow staining and icy solids to return to room temperature prior to commencement of cleaning programme. However, it is equally important not to allow the solids and crystalline tartars to dry out. Hydrated crystallised deposits are in the softest condition at this stage and easiest to remove. Leaving the tank for a long time following wine removal will only make the cleaning more difficult. Dehydrated tartar and crystalline deposits will harden, bake, and then prove more resilient to clean. Longer waiting times also can allow multiplication of bacteria colonies and allow entry of other airborne contaminants.

Cold water application of OXYBRITE:
Pre-chemical clean pressure rinse: With the tank and stains deposits back up to room temperature, but not 'dried out', connect up and prime the CIP circulation system. Add cold water to the dosing tank and proceed to pressure spray the tank from top to bottom. The aim here is to loosen and remove the worst of the larger tartar crystals and deposits to the bottom of the tank. Remove (hose out) these loose deposits from the tank to prevent blockages later in the sprayball / nozzle circulation cleaning cycle.

CIP Chemical Cleaning: Refill the dosing tank with cold water and add OXYBRITE at a rate of 1.0-4.0% weight / Volume, i.e. 1.0 to 4.0 Kg per 100L. Range of dosage is dependant on degree of severity of soiling / tartar. Prior removal of bulk / excessive loose deposits will maximise the efficiency / cost effectiveness of the clean by enabling a lower chemical addition. Mix and dissolve OXYBRITE in tank, then prime pump and open valve(s) to allow circulation to begin. Optimise pump flow as the more pressure available at the discharge nozzle / sprayball, the better the clean will be.
Initial pH will be around 11.0, as the circulation continues, the cleaning agent will slowly be consumed as it cleans, neutralises and removes acid tartars and deposits. Test the solution approximately every 20 minutes with a pH test strip. Should the pH drop as low as 7.5 the solution is effectively spent, and should be removed and replenished if required for complete cleaning. The action of the sprays should be checked for satisfactory performance, occasionally particulate tartar / scale can get into the system and impair the spraying action. Cleaning and removal of solids build up in the base of the tank during the cycle will speed up the clean and maximise efficiency of chemical consumption. Whilst cleaning continues, clean other area's, valves, taps hoses with the OXYBRITE solution and brushes, rinse and store ready for use.

Clean Water Rinse: When the tank is clean and free of deposits to your standards, a fresh water rinse should be applied, with the free rinsing nature of OXYBRITE, this can be minimised as much as possible to conserve water. Ensure all loose material is hosed out and then, when the drain feels free of detergent and pH is below 7.5, the cleaning phase is complete.

Sanitising Rinse: Prior to re-commissioning tank (refilling) apply a sanitising rinse, Castle Peroxitane at 0.5% to 1.0% applied cold will thoroughly neutralise a broad spectrum of aerobic, anaeroibic, fungi, yeasts and moulds. This will also thoroughly prepare the tank surface for use.

Hot water application of OXYBRITE: The use of hot water, whilst requiring more energy input heating the solutions, does speed up the process and allow some reduction in chemical consumption. The process is not too dissimilar to the cold application, however there is some benefit to circulating just hot water (60ºC) at the beginning of the CIP phase of the clean, prior to introduction of OXYBRITE.

Pre-chemical clean pressure rinse: Essentially as per the cold routine, but there is a benefit in using hot water. Ensure the hot tank is not left to 'dry out' allowing stains and tartars to bake.

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CIP Chemical Cleaning: Initially refill the dosing tank only with hot water 60-70ºC, begin the cleaning cycle with this alone to maximise the effect of the hot water. Initially the temperature will drop rapidly, but eventually this will stabilise and the tartars and scale deposits will soften and much will be removed with hot water alone. By this time, a lot of the acid material will have been taken up into solution by the hot water; this solution should be dropped to wastewater whilst still warm (40ºC) to maintain solution.
The dosing tank can now be refilled with hot water and OXYBRITE added at a lower concentration. A concentration of 1.0-2.0% weight / Volume, i.e. 1.0 to 2.0 Kg per 100L, it is safe to add OXYBRITE direct to hot water, it will dissolve readily. Prime pumps and continue CIP clean as per cold method, the much reduced volume of tartar / scale should be readily cleaned from system, even with this lower concentration of OXYBRITE.

Clean Water Rinse / Sanitising Rinse: Proceed as per cold water recommendations.

OH&S Requirements: Although the use of OXYBRITE is a much less hazardous procedure than handling Dangerous Goods rated corrosive caustic soda solutions, all avenues of occupational health and safety precautions should be observed.

Please review OXYBRITE Safety Data Sheet for full instructions. OXYBRITE: Is supplied in 25Kg cartons packed as 5kg poly bags, 5 per carton Product code: 20205

Application:

With regard to the use of this product as a cleaner and / or sanitiser that may have incidental contact with food:

1) The raw materials / ingredients of this product are permitted as processing aids as listed under clause 12 of the Food Standard Code 1.3.3 (Food Standards Australia New Zealand FSANZ) or
2) Are Generally Regarded As Safe (GRAS) according to the US Food and Drug Administration (FDA) or are recognised in the US Code of Federal Regulations (CFR) Title 21 part 178 as indirect food additives.

When used in accordance with the directions described in this product technical bulletin, this product complies with these recognised food safety parameters.

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