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LUZAR M

Biocide for cooling – heating systems.

GENERAL DESCRIPTION

LUZAR M is an antimicrobial agent of high concentration designed to avoid the alterations caused by microorganisms in water treatments and aqueous anti-corrosive technical products, and descaling products for cooling – heating systems. The efficiency of its bactericidal, fungicidal and algicide action is based on a combination of heterocyclic compounds which incorporate into their molecular structure a large proportion of bioactive elements and the high value of its partition coefficient. **LUZAR M** is totally soluble in water and it doesn't migrate from the aqueous phase hence its use guarantees a long conservation of the treated product.

TECHNICAL SPECIFICATIONS

Active ingredients (typical value)..... 2,1 %
Appearance ..... color amber liquid
Density at 20 ºC ..... 1,01 – 1,03 g/ml
Solubility ..... soluble in water and alcohol
pH 2-5

It is a broad spectrum biocide with high capacity to penetrate into sludge which ensures its efficiency.

LUZAR M is based on isothiazolinones, a biodegradable product with very low[1] toxicological levels therefore its manipulation is safer than most of conventional products.

LUZAR M is compatible with metals, plastics and seals usual in cooling – heating systems.

[1] Oral toxicity in rats > 4.000 mg/Kg.
Dermal toxicity in rabbits > 5.000 mg/Kg.

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APPLICATIONS AND DOSING

LUZAR M is completely soluble in water and compatible with most of the raw materials used for its treatment. Therefore it can be used as a biocide in closed cooling – heating systems, cooling towers, paper industry and water treatments in general. ***LUZAR M*** has good compatibility with ionic and non ionic compounds. ***LUZAR M*** is stable and active in a high range of pH (from 3 to 9).

Continuous temperatures above 60ºC may degrade the product over time. In the same way this product is not compatible with amines, oxidizing agents, reducing agents and mercaptans. In case of doubt, please consult our technical department.

Dosing:

The recommended dosing is:

- 0,01% (100 ppm) of the circuit volume for shock treatments in systems with sludge and lime of biological origin.
- 0,005% (50 ppm) of the total circuit volume for preventive treatments to be dosed during the maintenance.

For example, for an installation with a volume of 250 liters that presents biofouling problems, the dose would be 250liters * 0,01% = 25 mililiters. For the same installation once the problems are solved so they don't happen again, the annual dose should be 0,005%, that is, 12,5 mililiters.

HANDLING AND STORAGE

LUZAR M is a concentrated antimicrobial and the specific safety measures for these kind of products should be followed. In particular, it is recommended to avoid contact with the skin and mucosa using gloves and gloves and safety glasses. In case of contact, wash the affected areas with abundant water and soap. If the clothes are contaminated, take them off and wash them carefully before using it again. Avoid ingestion.

LUZAR M doesn't require any special storage conditions. Keep containers closed and avoid extreme temperatures.

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MICROBIOLOGICAL ACTIVITY *LUZAR M*

Its activity against most common microorganisms is stated below expressing the minimal inhibitory concentration in p.p.m. of active material.

BACTERIA:	ppm
Achromobacter Parvulus	2
Alcaligenes Faecalis	2
Bacillus Subtilis	2
Brevibacterium Ammoniagenes	2
Enterobacter Aerogenes	5
Enterobacter Cloacae	5
Escherichia Coli	8
Klebsiella Pneumoniae	5
Micrococcus Luteus	5
Roteus Mirabilis	5
Proteus Vulgaris	5
Pseudomonas Aeruginosa	5
Pseudomonas Fluorescens	2
Salmonella Typhimurium	5
Sarcina Lutea	5
Staphylococcus Aureus	2
Staphylococcus Epidermidis	2
Streptococcus Faecalis	5

FUNGI:	
Aspergillius Niger	9
Aspergillius Oryzae	5
Mucor Rouxii	5
Penicillium Funciculosam	5
Rhizopus Stolonifer	5

YEASTS:	
Candida Albicans	2
Candida Tropicalis	2
Rhototorula Rubra	2
Saccharomyces Cerevisae	2