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OSORNO

KMPS User Manual

KMPS is the common abbreviation for potassium monopersulfate. KMPS in its stable form can be stored under the appropriate conditions (cool and dry) for more than one year without any undue loss of efficiency. The stable form is chemically speaking a “triple salt”, and may carry different trade names, depending on the manufacturer.

Common usages for KMPS are:

- ◆ as an oxidant for drinking water;
- ◆ as a super-chlorination agent in swimming pools;
- ◆ as a disinfectant in lagoons prior to discharge;
- ◆ as an oxidant and disinfectant in dug-outs and recreational ponds.

In all of these applications, KMPS is unsurpassed in its ability to clarify water. Sun light greatly increases the efficiency of KMPS.

- ◆ as surface disinfectant - the new proposed use is for disinfection of hard surfaces (under certification process).

Use and typical dosage:

1. Read the Material Safety Data Sheet before use.
2. Determine the volume of the water prior to application.
3. Add the calculated amount of KMPS to the water.
4. Stir well and let the oxidant to do its work.

Dosage:

- The maximum dosage as oxidant for drinking water is 25 mg/l.
- The typical dosage for swimming pools is 30 g per 1 m³ of water. Swimming can resume 12 hours after application.
- The correct dosage for the disinfection of wastewater has to be determined by via laboratory testing. It depends on the BOD (biochemical oxygen demand) and bacterial count of the particular wastewater sample. The typical dosage is between 25 and 40 g per 1 m³ of wastewater.
**If a water colourant is used, apply it several days after the KMPS application.*
- For fast inactivation of various viruses, the dosing rate of KMPS is 10 g/l (1%, according to peer-reviewed literature).

Application:

Oxidant for drinking water - KMPS powder can be dissolved in a known volume of water and used as a concentrate that can be injected by a metering pump into a water stream.

- Preparation of a 10% KMPS solution – dissolve 1 kg of KMPS in 10 l of water (use protective equipment for the preparation of the concentrated solution, see MSDS), stir well until dissolved.

Oxidant for swimming pools – KMPS can be applied as a powder. Mixing can be achieved by the operation of circulation pumps. Protective equipment must be used when working with the product (see MSDS).

Oxidant and disinfectant for ponds, lagoons and dug-outs – KMPS can be applied as a powder from a

boat. Mixing can be achieved by the operation of a boat motor. Protective equipment must be used when working with the product (see MSDS).

Surface disinfection (potential, not certified yet) – dissolve 10 g of KMPS in 1 l of water (use protective equipment for the preparation of the concentrated solution, see MSDS), stir well until dissolved (solubility is very high). Spray prepared solution on hard surface or apply with wash cloth (surface must be completely wet), let dry naturally.

Technical support: Our laboratory is equipped to measure the required dosage if a customized dosage is required.