

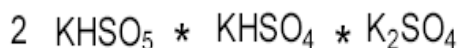
## CAROAT<sup>®</sup>

Potassium monopersulfate (KMPS)

CAS#70693-62-8

Potassium peroxymonosulfate – triple salt:  $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$

### Structural Formula



### Description

White, crystalline, odourless, free flowing salt consisting of potassium peroxymonosulfate, potassium hydrogen sulfate and potassium sulfate. The only stable transportable salt of Caro's acid is its triple salt (theoretical Formula see above). KMPS undergoes a strongly acid reaction in aqueous solution. As a result of its high oxidation potential and microbiological effectiveness, it can be used for a large number of different applications. It has the particular advantage of being highly stable in storage, easy and safe to handle, free from chlorine and of having a high reactivity.

### Technical Data

Appearance	White crystalline salt
KHSO <sub>5</sub> content	Ca.45 % w/w (typical),43 % w/w (min.)
Active oxygen (AO)	Ca. 4.7 % w/w (typical)
Active oxygen (AO)	Ca. 5.2 % w/w (Theoretical, pure triple salt)
Iron content (typically)	< 20 ppm (mg/kg)
Bulk density (typically)	Ca. 1100 g/l
Melting point	(decomposition)
Solubility in water at 20°C	Ca. 250 g/l
pH of a 1% solution in water (typically)	Ca. 2.0
Decomposition of the product as supplied	At above 60 °C
Recommended storage temperature	Below 30 °C
Storage stability as from date of delivery	12 months
Moisture content (typically)	<0.1 %

This product is in compliance with the ElektroG (EU-Directives: RoHS 2002/95/EG, WEEE 2002/96/EG)

## Application

Denture cleaner: Effective main ingredient in Cleaning tablets for dentures.

Disinfectant: Use for chlorine-free disinfection or purification of swimming pool water and spas. Prevention of chlorine acne and eye irritation. Approved for oxidative drinking water treatment.

Bleaching agent: CAROAT® has a bleaching effect comparable to that of organic peracids; in the TAED/perborate system it is particularly effective at low temperatures.

Biocidal effect: Suitable as an additive to acidic cleaning agents with bleaching and disinfectant effect.

Effluent treatment: Oxidative treatment of problematic effluents; sulfide oxidation, nitrite oxidation and cyanide detoxification (see our technical information).

Plaster additive: Addition of CAROAT® leads to generation of oxygen and improved product characteristics (e.g. thermal insulation, water absorbency, mechanical properties).

Metal treatment: Microetchant: Use for etching printed circuit boards.

### Others:

- Textile finishing (shrink proofing of wool)
- Chemical synthesis (production of dioxirane)
- Paper manufacture (repulping, particularly of wet-strength paper).

## Storage

CAROAT® must be stored under dry conditions. It has to be protected from direct sunlight and from any other sources of heat.

## Standard Packaging

The standard packaging of CAROAT® is 25 kg PE-bag.

## Disclaimer

This information and all further technical advice are reflecting our present knowledge and experience based on internal tests with local raw materials with the purpose to inform about our products and applications. The information should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. We reserve the right to make any changes according to technological progress or further developments.

Application and usage of our products based on our technical advice is out of our control and sole responsibility of the user. The user is not released from the obligation to conduct careful inspection and testing of incoming goods in order to verify the suitability for the intended application.

United Initiators  
**EU**  
T: +49 89 74422 237  
F: +49 89 74422 6237  
cs-initiators.eu@united-in.com

United Initiators  
**Nafta**  
T: +1 800 231 2702  
F: +1 440 323 0898  
cs-initiators.nafta@united-in.com

United Initiators  
**China**  
T: +86 20 6131 1370  
F: +86 139 2503 8952  
cs-initiators.cn@united-in.com

United Initiators  
**Australia**  
T: +61 2 9316 0046  
F: +61 2 9316 0034  
cs-initiators.au@united-in.com

[www.united-initiators.com](http://www.united-initiators.com)