

## Product Information

# Potassium Dihydrogen Phosphate Optipur®

### GENERAL INFORMATION

Potassium Dihydrogen Phosphate is a high purity salt that is ideally suited as a precursor material to grow single crystals from. These single crystals show good UV transmission, high optical damage threshold, high birefringence and high nonlinear and electro-optic coefficients. With a transparency range from 160 to 1800 nm the material is suitable for DUV-, Vis- and NIR-application.

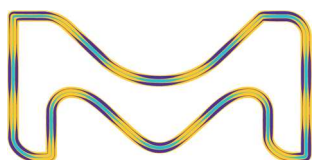
### AREAS OF APPLICATION

- Potassium Dihydrogen Phosphate (KDP) crystals are among the most widely-used commercial non-linear optic (NLO) materials. They feature strong UV transmission, high birefringence and a high NLO coefficient. They are commonly used for doubling, tripling and quadrupling of Nd:YAG lasers at room temperature.
- KDP crystals grown from Potassium Dihydrogen Phosphate Optipur® retain the material's high purity required to assure long life, high reliability and high laser damage threshold performance for laser optics applications.
- In addition, the crystals also show high electro-optic coefficients and can thus be used as electro-optical modulators, Q-switches for Nd:YAG, Nd:YLF, Alexandrite and Ti-sapphire lasers as well as for Pockels cells.

### PRODUCT

Article No.	Description	Formula	Purity*	Package	Appearance
104872	Potassium Dihydrogen Phosphate Optipur®	$\text{KH}_2\text{PO}_4$	3N	25 kg	white powder

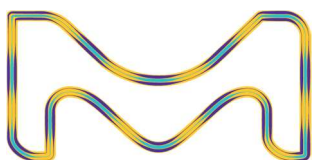
\* The purity value is based on the specified trace metals. For further information, please read the quality statement at [www.optipur.com](http://www.optipur.com).



## SPECIFICATION

Ag (Silver)	≤ 0.20	ppm
Al (Aluminium)	≤ 0.5	ppm
As (Arsenic)	≤ 0.5	ppm
B (Boron)	≤ 2.0	ppm
Ba (Barium)	≤ 0.50	ppm
Ca (Calcium)	≤ 0.50	ppm
Cd (Cadmium)	≤ 0.2	ppm
Co (Cobalt)	≤ 0.20	ppm
Cr (Chromium)	≤ 0.2	ppm
Cu (Copper)	≤ 0.2	ppm
Fe (Iron)	≤ 0.2	ppm
Mg (Magnesium)	≤ 0.20	ppm
Mn (Manganese)	≤ 0.20	ppm
Mo (Molybdenum)	≤ 0.20	ppm
Na (Sodium)	≤ 30.0	ppm
Ni (Nickel)	≤ 0.2	ppm
Pb (Lead)	≤ 0.50	ppm
Rb (Rubidium)	≤ 10.0	ppm
Sb (Antimony)	≤ 0.5	ppm
Si (Silicon)	≤ 2.0	ppm
Sr (Strontium)	≤ 0.50	ppm
Tl (Thallium)	≤ 0.20	ppm
V (Vanadium)	≤ 0.2	ppm
Zn (Zinc)	≤ 0.20	ppm
Zr (Zirkonium)	≤ 0.2	ppm
Sum of Al, Cr, Fe, Sb, and Ba	≤ 1.50	ppm
Loss on drying (105°C)	≤ 2.0	%

Should you have further specific requirements, please contact us.



## Quality assurance

Research, production and sales of our Optipur® high purity materials take place under a certified DIN EN ISO 9001:2000 quality management system and DIN EN ISO 14001 environmental management system. The quality of the materials is assured by our manufacturing processes, in-process controls and quality tests. Each batch is released only after passing our chemical analysis and application tests designed to confirm the suitability of the material for the evaporation process.

## Handling precautions

Product safety information required for safe use is not included in this document. Before handling, read product and safety sheets and container labels for safe use, physical and health hazard information. The material safety data sheet is available online at [www.optipur.com](http://www.optipur.com), from your representative or distributor, or by calling your global contact.

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