

## HIGH-PURITY METAPHOSPHATES VARIOUS OPTICAL MATERIALS

Nippon Chemical Industrial Co., Ltd. develops various types of metaphosphates as materials for optical glass. Metaphosphates have optical characteristics such as refractive index that differ depending on the type of metal as a major component. In optical glass, a combination of a material with a low-refractive index and a material with a high-refractive index corrects chromatic aberration to prevent blurring, and high-purity metaphosphates are used as constituent materials for phosphate glass materials with a low-refractive index and a low dispersion and fluorophosphate glass. Metaphosphates are broadly used as materials for various types of optical glass, including use in manufacture of aspherical lenses by the press method, because of the low glass softening point. Various types of metaphosphates have recently been used as low-melting point glass materials as a substituent for lead, and as glass materials for filters.

Characteristics required of optical glass materials are as follows:

- (1) little colored impurity elements (Fe, Ni, Cr, Mn, Cu, Co) contained
- (2) low ignition loss
- (3) little free phosphate contained
- (4) stable molar ratio of  $MxOy/P_2O_5$ .

High-purity metaphosphates of Nippon Chemical Industrial Co., Ltd. meet all of characteristics required of optical materials by our own production technology, and are valued highly by every user.

Various types of metaphosphates sold at present are as follows:

- High-purity aluminum metaphosphate
- High-purity barium metaphosphate
- High-purity lithium metaphosphate
- High-purity sodium metaphosphate
- High-purity potassium metaphosphate
- High-purity calcium metaphosphate
- High-purity magnesium metaphosphate
- High-purity zinc metaphosphate

As other phosphates for optical glass, the following materials are available:

- High-purity boron phosphate
- High-purity titanium pyrophosphate

If you would like any materials other than the above, please feel free to contact us. We are ready to serve you.

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