

## PHRA 50

### Active Pharmaceutical Magnesium Oxide

An active magnesia for use in the manufacture of rubber and plastic items for medical purposes as well as for mineral supplements and as a food additive (E530) for color retention and pH modification. Meets the requirements of the U.S. Pharmacopoeia (25th Edition), National Formulary (20th edition) and Food Chemicals Codex (Fourth edition).

Chemical Analysis	Specification	Typical Value
Magnesium Oxide as MgO (ignited basis)	98.5%	99.2%
Calcium as CaO	0.45% max.	0.10%
Iron as Fe	300 ppm max	100 ppm
Heavy metals as Pb	20 ppm max.	<< 20 ppm
Lead as Pb	10 ppm max.	< 0.5 ppm
Arsenic as As	3 ppm max.	< 1 ppm
Chloride as Cl	0.1% max.	0.05%
Sulphate as SO <sub>4</sub>	0.5% max.	0.15%
Soluble salts	1% max.	< 0.5%
Free alkali (as 0.1N H <sub>2</sub> SO <sub>4</sub> per gram)	2.0 ml max.	< 0.5 ml
Acid insolubles	0.1% max.	0.05%
Loss on ignition (900° C)*	8% max.	2%

Physical Properties	Specification	Typical Value
Bulk density (tapped)	0.35-0.55 g/cc	0.45 g/cc
Particle size: Passes 325 mesh (wet sieve)	99.0% min.	99.8 %
Surface area (BET)*	40-70 m <sup>2</sup> /g	55 m <sup>2</sup> /g

\*Available in a range of controlled surface area and LOI values

**Appearance and Description:** Free flowing white powder, almost insoluble in water. Insoluble in alcohol. Dissolves in dilute mineral acids. (Caution! Exothermic reaction!)

**Packaging and Storage:** Net 20/25 kg in multiwall paper bags with separately sealed moisture proof inner polyethylene bags, or valve bags with coated barrier ply. Store in original packaging in a dry, ventilated space. Shelf-life under suitable storage conditions: 2 years from date of manufacture.

Custom-tailored specifications and other packaging modes are available.

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