



PRODUCT DATA SHEET MAGNESIUM CHLORIDE

Stan Chem International Ltd is one of the largest distributors of magnesium chloride technical flakes throughout the UK as well as brine 30% min. We also distribute the pharmaceutical grade in crystalline form corresponding to: BP, DAB, USP, FCC & JP pharmacopeia. Our usual products are sold as hexahydrate type, both technical and pharmaceutical grades.

Stan Chem distributes the various grades of magnesium chloride in 25kg net bags or IBCs.

Main applications for our magnesium chloride:

Abrasives: magnesium oxychloride cements (often called Sorel cements) are used in the production of abrasive stones, polishing marble & granite and in the production of mill- stones (for rice whitening mills)

Animal feeds: source of magnesium nutrition, catalysers, salts for sea aquariums (pharmaceutical grade is often recommended for this end use)

Construction: used in combination with magnesium oxide for the production of special types of magnesium oxychloride cements (often called Sorel cements). Floors of Sorel cement are very hard, durable and always level as well as having very good conductivity properties (hence suitable for high tech production halls, warehouses) and are resistant to oil and solvents.

Anti & De-icers for road surfaces: the use of rock salt or sand on icy roads has now decreased and is being replaced with magnesium chloride liquor. Magnesium chloride is much less toxic to plant life surrounding highways and airports and is less corrosive to concrete and steel (and other iron alloys) than sodium chloride. The liquid magnesium chloride is sprayed on dry pavements prior to precipitation or wet pavement prior to freezing temperatures in the winter months to prevent snow and ice from adhering and bonding to the roadway. The application of anti-icers is utilised in an effort to improve highway safety. Magnesium chloride is also sold for household and business use to de-ice pavements & driveways. In these applications, the compound is applied after precipitation has fallen or ice has formed, instead of previously. The use of magnesium chloride seems to show an improvement in driving conditions during and after freezing precipitation

Dust suppression: due to the hygroscopic character of magnesium chloride, it can be a very effective dust suppressant. Main applications in this field: dust control on gravel roads, rural roads, indoor horse-riding arenas, quarries and mine sites. Since magnesium chloride continuously absorbs moisture from the air, surfaces treated with magnesium chloride stay dust free over a long period of time. Magnesium chloride is not only an excellent dust suppressant, it also acts as a compaction agent. The moisture absorbed from the air binds the dust particles into the road surface. The road traffic then helps the binding process and this results in a stabilised, hard packed road surface. In most cases only one or two liquid treatments per year are required and because it is a 100% natural product, it is non-toxic and safe to the environment

Food & Nutritional: an important coagulant used in the preparation of tofu from soy milk; the pharmaceutical grade is recommended for use in baby foods & nutritional supplements

General chemicals: used in the production of fat hardening catalysts (edible fats), preparation and analytical chemistry (ACS)

Household & Cleaning: used to prevent wet sponges & sponge cloths from drying in packaging; toilet-bowl cleaners, liquid detergents and also as a raw material for production of magnesium silicate, a bleaching stabiliser for washing powders (prevents damage to fabrics by uncontrolled bleaching); as a thickener in some fabric softeners and due to its very hygroscopic character, magnesium chloride can be used as a moisture absorbent to lower the humidity in household rooms.

Pharmaceuticals: Due to the high purity of technical grade available, it is a very suitable raw material for several antacids such as: magnesium hydroxide (milk of magnesia), magnesium oxide and magnesium silicate. However for infusion and dialysis solutions, liquid pharmaceuticals, veterinary preparations and dermal cosmetics, the pharmaceutical quality is highly recommended

Textiles: a catalyst in the so-called "finishing" process (cotton & polyester-cotton impregnated with resin preventing creases & folds)

Toiletries: can be used in bath-salt preparations and dermal cosmetics

Water treatment: used as a magnesium source for phosphate removal in waste water (i.e. manure, municipal water treatment, waste water treatments of food processing industry). The phosphate can be precipitated by producing Magnesium Ammonium Phosphate. Magnesium chloride can also be used in combination with calcium hydroxide in non-sulfate containing waste streams. By adding magnesium chloride & calcium hydroxide, magnesium hydroxide is formed in-situ and contaminants (metals or organics) co-precipitate. In this way, process water can be re-used.

TECHNICAL & PHARMACEUTICAL GRADES AVAILABLE