



Product Data Sheet

Magnesium chloride hexahydrate PhEur/BP, USP, JPC, ChP, ACS

Production site	Macco Organiques, s.r.o., Bruntál, Czech Republic
Chemical name	Magnesium chloride hexahydrate
CAS number	7791-18-6
EC number (EINECS)	232-094-6
Chemical formula	$\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Molecular weight	203.303
Contents of Magnesium	11.8 g in 100 g of $\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Shelf life	3 years
Storage Conditions	Store in cool, dry and well ventilated areas, store in tightly closed packages at temperature: -5 – 45°C, and relative humidity: 5 – 98 %
REACH registered no.	01-2119485597-19-0001

Physical properties

Appearance	Inorganic colourless crystalline
Density	1.57 kg/dm ³
Solubility in water at 20°C	3043.05 g/1000 g
Melting point	117°C
Temperature of dehydration	500°C
Taste	bitter salt

Applications



Dialysis Solution



Infusion Solutions



Nutritional Supplements



Pharmaceuticals



Bottled/Drinking Water



Baby Food & Infant Formulas



Analytical Chemistry & Special Tech. Applications

This product is authorized as active pharmaceutical ingredient (API) and can be used for production of dialysis solutions.

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Certificates

GMP according to ICH Q7A
HACCP
ISO 9001:2016
CEP
Kosher including Passover days
HALAL

Magnesium chloride hexahydrate is in conformity with the last edition of:

- European Pharmacopoeia/British Pharmacopoeia
- American Pharmacopoeia
- Japanese Pharmaceutical Codex
- Chinese pharmacopoeia
- American chemical society specifications

Statement

No material of animal or human origin is used in the raw materials, in the production and distribution process.
Product is BSE/TSE, GMO, allergen free, suitable for vegan/vegetarian diet

Packaging

Paper bags with LDPE inner liner - 25 kg,
Carton boxes with LDPE inner liner - 25 kg
Big bags with LDPE inner liner - 420 kg, 900 kg

On request

Single LDPE bags – 25 kg
Double LDPE bags – 25 kg
Plastic drums with LDPE inner liner
Fibre drums with LDPE inner liner
Low volume bags – from 0.5 to 8.0 kg

For some technical applications is contents of bromides <0.002 % on request

Granulometry – not binding parameters

mm	Typical values
>0.800	1-9 %
0.800 - 0.355	70-80 %
<0.355	11-29 %

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Chemical analysis

Parameter	Specification – PhEur/BP	Specification – USP	Specification – JPC	Specification – ChP	Specification – ACS
Identity A)	Water	Magnesium	Magnesium salt	Magnesium	
B)	Chlorides	Chloride	-	Chlorides	
C)	Magnesium	-	-	-	-
Appearance	Colourless crystals, hygroscopic	-	Colorless and odorless crystals or mass	Colourless transparent crystal or crystalline powder; odorless; taste bitter; freely deliquescent	Colorless, deliquescent solid
Solubility	Very soluble in water, freely soluble in ethanol (96 percent)	-	Very soluble in water, freely soluble in ethanol	Freely soluble in water and in ethanol	-
Assay	98.0 – 101.0 %	98.0 – 101.0 %	NLT 98.0 %	98.0 – 101.0 %	99.0 – 102.0 %
Appearance of Solution	Clear and colourless	-	Clear and colorless	Clear and colourless	-
Acidity or alkalinity	NMT 0.3 mL of 0.01 M HCl/NaOH	-	-	4.5 – 7.0	-
Bromides	Maximum 500 ppm	-	-	NMT 0.05 %	-
Sulfates	Maximum 100 ppm	NMT 0.005 %	NMT 0.005 %	NMT 0.01 %	0.002 %
Aluminium	Maximum 1 ppm	NMT 1 ppm	-	NMT 0.0001 %	-
Arsenic	-	-	NMT 3 ppm	NMT 0.0002 %	-
Calcium	Maximum 0.1 %	NMT 0.01 %	Corresponds to test	NMT 0.1 %	0.01 %
Heavy metals	-	-	NMT 10 ppm	NMT 0.001 %	5 ppm
Iron	Maximum 10 ppm	-	Corresponds to test	NMT 0.001 %	5 ppm
Potassium	Maximum 500 ppm	Corresponds to test		Corresponds to test	0.005 %
Water content	51.0 – 55.0 %	-		51.0 – 55.0 %	-
pH	-	4.5 – 7.0	5.0 – 7.0	-	-
Insoluble matter	-	NMT 0.005 %		-	0.005 %
Barium	-	Corresponds to test	Corresponds to test	Corresponds to test	0.005 %
Residual solvents	-	Corresponds to test*		-	-
Nitrate	-	-	-	-	0.001 %
Phosphate	-	-	-	-	5 ppm
Ammonium	-	-	-	-	0.002 %
Manganese	-	-	-	-	5 ppm
Sodium	-	-	-	-	0.005 %
Strontium	-	-	-	-	0.005 %

Remark: *None organic solvents are used in production, material fulfill the requirements of USP, PhEur and EMA/CHMP/ICH/82260/2006 for residual solvents.

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