

Under the brand PHARMAGNESIA®, LEHVOSS offers a comprehensive range of high quality minerals for food supplements, pharma, beverages and food applications.



PRODUCT PROFILE SHEET

The Mineral Division of LEHVOSS Group, based in Hamburg, offer a wide range of speciality minerals and customized solutions for pharmaceuticals, nutraceuticals and functional foods & beverages across all of Europe, thanks to the LEHVOSS subsidiaries and locally based qualified sales managers.

Recently added to the range, you can find our DC (direct compression) Magnesium Citrate Anhydrous Granular and our new Calcium Carbonate: a highly pure, natural source of Calcium.

With a comprehensive mineral range and several years of experience in international sourcing, long-term partnerships with qualified producers and an established HACCP certified system, you can rely on our dedicated team to fulfil your most demanding requirements in minerals, and much more.



Product Advantages

- ✓ **High purity grades**
Available as different particle size distributions and bulk densities; from light to heavy powders, directly compressible and free-flowing granules
- ✓ **Wide product range**
- ✓ **More than 125 years of expertise**
- ✓ **Comprehensive documentation**
Proprietary specifications and quality assurance
- ✓ **Long-term partnerships with qualified manufacturers**
- ✓ **Dedicated team across Europe**
- ✓ **Highly qualified technical and commercial support**
- ✓ **Flexibility in procurement**
To meet individual volumes and packaging requirements
- ✓ **Certified according to ISO 9001 and established HACCP concept**

Quality Assurance

All our PHARMAGNESIA® products are produced according to LEHVOSS proprietary specifications.

Process:

Certified according to ISO 9001. Products from processes certified according to ISO 9001, ISO 22000, GMP, IFS or BRC available on request.

Purity:

Optional: EP, USP, JP, BP, FCC, NF or E number.

Packaging:

Bags, drums, cartons, big bags (Packaging according to special requirements - available on request).

Product Range

A comprehensive selection of products with high flexibility in sourcing allows us to offer our customers the mineral solutions they require.

We respond through applications engineering advice and a constantly growing product portfolio, tailored to our customer's needs and market demands.

Magnesium

Named after an ancient city in Asia Minor, it is the "green" mineral. As the most important component of chlorophyll, we encounter it every day on our plates.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Oxide	MO	•E530	•EP, API	Powder	Light, heavy
	MO	•E530	•EP, API	Granular	Light, heavy
Carbonate	MC	•E504 (ii)	•EP, USP	Powder	Light, heavy
	MC	•E504 (ii)	•EP, USP	Granular	Light, heavy
Hydroxide	MH	•E528	•EP, USP, API	Powder	Light, heavy
	MH	•E528	•EP, USP, API	Granular	Light, heavy
Phosphate	TMP		•USP	Powder	
Chloride	MCL	•E511		Powder	
Ascorbate			•	Powder	Blend, hydrate fully reacted
Bisglycinate			•	Powder	Fully reacted, buffered
Citrate	MCI	•	•EP, USP	Powder	Hydrate, anhydrous
	MCI	•	•EP, USP	Granular	Hydrate, anhydrous
Gluconate	MGL	•	•EP, USP	Powder	
Glycerophosphate			•EP	Powder	
			•EP	Granular	
Lactate	ML	•FCC	•EP	Powder	Hydrate
Malate		•		Granular	
Pidolate		•		Powder	
Stearate	MSt	•E470b	•EP	Powder	Palm oil, palm oil free, vegetable
Succinate		•		Powder	
Taurinate		•		Powder	

Calcium

Calcium ranks fifth in the list of the most important elements in the human body. As the building block of all bones and teeth, it forms our basic structure.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Carbonate	CC	•E170	•EP	Powder	
	CC	•E170	•EP	Granular	
Hydroxide	CH	•E526, FCC		Powder	
Chloride	CCL	•E509		Powder	
Phosphate	DCP, TCP	•E341 (ii)	•EP, USP	Powder	Anhydrous
	DCP, TCP	•E341 (ii)	•EP, USP	Granular	Anhydrous
Acetate	CA	•E263, FCC	•EP	Powder	
Ascorbate		•FCC	•USP	Powder	
Bisglycinate		•		Powder	
Citrate	CCi	•E333 (iii)	•USP	Powder	Hydrate, anhydrous
	CCi	•E333 (iii)	•USP	Granular	Hydrate, anhydrous
Citrate Malate		•		Powder	
Gluconate	CGI	•	•EP, USP	Powder	Hydrate; micronised
	CGI	•	•EP, USP	Granular	Hydrate; micronised
Glycerophosphate		•	•	Powder	
Lactate	CL	•E327	•EP, USP	Powder	
Malate		•		Powder	
Pidolate		•		Powder	
Stearate	CSt	•E470a	•EP, USP	Powder	Palm oil, palm oil free, vegetable



Zinc

Although in very small doses, it nevertheless plays an important role in many important body processes. As a factor in the formation of carbonic anhydrase, it ensures the removal of carbon dioxide from the body.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Oxide	ZO		•EP, USP	Powder	
Sulphate	ZS		•EP, USP	Powder	Hydrate
Acetate	ZA	•E650	•USP	Powder	
	ZA	•E650	•USP	Granular	
Citrate	ZCi	•		Powder	Hydrate, anhydrous
Biglycinate		•		Powder	
Gluconate	ZGL		•EP, USP	Powder	
	ZGL		•EP, USP	Granular	
Malate		•		Powder	
Methionine		•		Powder	
Picolinate		•		Powder	

Potassium

Our body regulates many functions with the balance of opponents. Potassium acts as the antagonist of sodium.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Chloride	KCL	•	•EP, USP	Powder	
Carbonate	KC	•E501 (ii)	•EP	Powder	Hydrogen carbonate
Citrate	KCi	•E332 (ii)	•EP	Powder	Hydrate; fine powder
Gluconate	KGL		•USP	Powder	Anhydrous
	KGL		•USP	Granular	Anhydrous
Malate		•		Powder	

Iron

Known for its strong affinity for oxygen it is the most important mineral in the body. As the central atom in hemoglobin, it ensures the transport of oxygen from the lungs to the cell.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Sulphate	FS		•EP	Powder	Hydrate, anhydrous
Pyrophosphate		•FCC		Powder	
Biglycinate		•		Powder	
Fumarate	FF	•	EP, USP, API	Powder	

Copper

While being the first metal processed by humans, in the body it plays as a cofactor in enzymes an important role as a "switch" in growth, brain development, connective tissue, the formation of red and white blood cells, the cholesterol and glucose metabolism as well as the immune system.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Sulphate			•USP	Powder	Hydrate
Biglycinate		•		Powder	
Citrate	CuCi	•	•	Powder	Hydrate
Gluconate	CuGL		•USP	Powder	

Chromium

Salt	Grade	Food	Pharma	Dosage Form	Properties
Chloride	CrCl		•USP	Powder	Hydrate; crystallised
Picolinate		•		Powder	

Manganese

With 7 oxidation states and the colors pink, red, green, blue, violet, brown and black, it is the colorful bird of minerals. As a central atom, manganese activates various enzymes through these different oxidation states.

Salt	Grade	Food	Pharma	Dosage Form	Properties
Biglycinate				Powder	
Gluconate	MnGl	•FCC	•USP	Powder	Dried

Sodium

As one of the most common elements in nature, it occurs in many forms, e.g. as table salt. In the body, it regulates the electrolyte balance and the conduction of stimuli. Since sodium deficiencies are rare, it acts in nutrition minerals as the counter ion of choice due to its good solubility.

Salt	Grade	Food	Pharma	Doseage Form	Properties
Ascorbate		•E301		Granular	
Caprylate		•		Powder	
		•		Granular	

Selenium

Salt	Grade	Food	Pharma	Dosage Form	Properties
Methionine		•		Powder	

Chelated Minerals

A chelated mineral is, in chemical terms, a combination of a metal cation and one or more organic compounds. The advantages of chelates is the mentioned structure, which offers particularly good solubility, with highly competent bioavailability.

We offer customised and application-based fully reacted or buffered chelates.



Product Applications



Our minerals can be used in coated and effervescent tablets, capsules, ready to drink sachets, liquid applications and much more. Each mineral meets the standard pharmacopeias, European Regulations and Food Law requirements, and are available in different grades, particle size distributions and bulk densities; from light to heavy powders, directly compressible and free-flowing granules.

Contact us with details of your project, so we can assist you with finding the most suitable grade to your requirements.

Product Dosage

Daily intake recommendations for nutrition minerals for adolescents and adults¹

Mineral	Recommended Daily Intake
Potassium (K)	2000 mg
Calcium (Ca)	1200 mg
Sodium (Na)	550 mg
Magnesium(Mg)	300 - 400 mg
Iron (Fe)	10 - 15 mg
Zinc (Zn)	7 - 10 mg
Manganese (Mn)	2 - 5 mg
Copper (Cu)	1 - 1.5 mg
Chromium (Cr)	30 - 100 µg
Sodium (Na)	1500 mg

Website Link

For more information visit our website: www.lehvoss-nutritionminerals.de/en

About

Lehmann&Voss&Co. and LEHVOSS Group

Through a flexible combination of its three business models (distribution, trading and production), Lehmann&Voss&Co. with its subsidiaries (LEHVOSS Group) offers a broad range of industrial, chemical, personal care, nutraceutical and mineral solutions. For our customers, we are a trustworthy partner that is highly competent in providing technological solutions and offers personal advice combined with individual services.

References

1. German Nutrition Society (DGE) *Dach-Referenzwerte für die Nährstoffzufuhr*; 2nd Edition August 2015; cf. www.dge.de