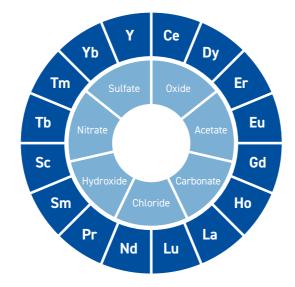




# Rare Earth Metal Salts and Specialty Minerals

- Comprehensive range of high-purity salts
- Unique range of 16 rare earth metals with 7 salt combinations
- Long-standing supplier relationships
- Variety of purities and delivery forms
  (powders, nano powders, aqueous solutions)
- Full support of regulatory services



#### Rare earth metal salts

Metal	Oxide	Acetate	Carbonate	Chloride	Hydroxide	Nitrate	Sulfate	Available purity range
Cerium	• 0	••	•	••	•	••	•	2N-5N
Dysprosium	• 0	••	•	••	•	••	•	2N-5N
Erbium	• 0	••	•	••	•	••	•	2N-5N
Europium	• 0	••	•	••	•	••	•	2N-5N
Gadolinium	• 0	••	•	••	•	••	•	2N-5N
Holmium	• 0	••	•	••	•	••	•	2N-5N
Lanthanum	• 0	••	•	••	•	••	•	2N-5N
Lutetium	• 0	••	•	•	•	••	•	3N-5N
Neodymium	• 0	••	•	••	•	••	•	2N-5N
Praseodymium	• 0	••	•	•	•	•	•	2N-5N
Samarium	• 0	••	•	••	•	••	•	2N-5N
Scandium	• 0	••	•	••	•	••	•	2N-5N
Terbium	• 0	••	•	••	•	••	•	2N-5N
Thulium	• 0	••	•	••	•	••	•	2N-5N
Ytterbium	• 0	••	•	••	•	••	•	2N-5N
Yttrium	• 0	••	•	••	•	••	•	2N-5N

Available as: • Powder

- Aqueous solutions with available salt contents between 2%-45%
- $\circ$  Nano powder particle size < 50 nm

Please ask us for tailor-made rare earth compounds.



## **Specialty minerals**

Minerals / Salts	Available purity range
Minerals	
Aluminum oxide	2N-5N
Gallium oxide	2N-7N
Niobium oxide	2N-4N
Hafnium oxide	3N
Data and a	
Lithium salts	
Lithium carbonate*	min. 98%
Lithium hydroxide	min. 98% (LiOH min. 56%)
Titanates	
Barium titanate	min. 99%
Calcium titanate	min. 97%
Potassium titanate	min. 95%
Others	
Barium ferrite	min. 96%

<sup>\*</sup> Grade: Technical, technical fine, technical crystals

For our comprehensive magnesia and magnesium compounds, please refer to our LUVOMAG® range. For our zirconia and zirconium salts, please ask for our LUVOZIRC® range.

## Packaging and logistics

We offer a wide variety of packaging solutions. Please contact us for individual solutions. Our numerous warehousing and logistics operators are audited and certified according to the applicable standards.

#### Quality

Certified according to ISO 9001 and ISO 14001.

Wherever required, our products are REACH registered. For more than 20 substances, Lehmann&Voss&Co. acts as a lead or co-registrant.

Expanding the volume bands or additional registrations are available as a service on request. We are happy to assist you with similar regulations such as UK-REACH, KKDIK or K-REACH.

## "Nines" purity notation

Notation	Purity	Impurities	
N	> 90%	< 10%	
2N	> 99%	< 1%	
2N5	> 99.5%	< 0.5%	
3N	> 99.9%	< 0.1%	
4N	> 99.99%	< 0.01%	< 100 ppm
5N	> 99.999%	< 0.001%	< 10 ppm
6N	> 99.9999%	< 0.0001%	< 1 ppm
7N	> 99.99999%	< 0.00001%	< 0.1 ppm

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Any recommendations expressed for use of the seller's materials are made to the best of the seller's knowledge and are based on prior tests and experience of the seller, which it considers reliable; however, the seller does not guarantee the results to be obtained and all such recommendations are non-binding, including with regard to the protection of third-party rights, do not constitute a commitment and do not affect in any way the buyer's obligation to examine and/or test the seller's goods with regard to their suitability for the buyer's purpose. No information given by the seller is to be construed in any way as a guarantee regarding characteristics or duration of use, unless such information has been explicitly given as a guarantee.







