

## Info Sheet Lohtragon®

### Free-Flowing Agents

Storage and production processes require a safe and efficient handling of dry chemicals like powders. In addition to the adapted production equipment, a special treatment of the powdered material optimizes your process from the goods receipt to the end product.

The Lohtragon® free-flowing agents improve your production throughput with consistent quality of your products by:

- ◆ Prevention of caking
- ◆ Improved flowability and dispersability
- ◆ Low dust tendency
- ◆ Elimination of lumps

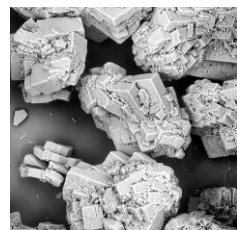


In a powder the amount of liquid (typically water on the surface or within the crystal structure) and gas (normally air) also influences the powder properties.

The improvement of the powder flowability is affected by:

- ◆ Particle size and its distribution
- ◆ Particle shape, surface texture, porosity, amorphous content, hygroscopicity
- ◆ Interparticle forces such as van der Waals, electrostatics and liquid bridges
- ◆ Free-flow activators such as Lohtragon® free-flowing agents

Eventually, the final behavior of a powder can hardly be predicted due to the numerous influencing parameters. Zooming on the feature of free-flowability the following properties improve this characteristic efficiently:



- ◆ Efficient water absorption
- ◆ Act as surface barrier in order to:
  - ◆ Prevent liquid bridges
  - ◆ Decrease interparticle friction mechanical interlocking
  - ◆ Dissipate electrostatic forces
  - ◆ Inhibit crystal growth

A dedicated range of the Lohtragon® high performance metal salts acts as free-flow activator, prevents caking and fulfils the requirements and regulatory standards of the various industry segments.

- ◆ Lohtragon® C35
- ◆ Lohtragon® C36
- ◆ Lohtragon® C46

These core products are available in various bulk densities and specifications. Potential alternatives are Dr. Paul Lohmann® Calcium Phosphate and Calcium Citrate.

Our expertise bases on long-term experience in the field of free-flowing agents including the filing of a patent and have been tested with other powders such as pigments and mineral salts with high caking tendency.

Test methods are flow rate measurements with orifice plates and rheometers for powders.



standard powder  
(Images from a powder rheometer)



treated powder

Our Lohtragon® experts support you in the preselection of the most suitable product and quality.

## Free-Flowing Agents

### Contact

Connect directly with our Lohtragon® experts in our German headquarter.



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### Lohtragon® – A Brand of Dr. Paul Lohmann®

For over 135 years, the company Dr. Paul Lohmann has been able to establish and maintain its leading position as an international manufacturer of mineral and metal salts that meet the highest quality standards. The product range includes over 400 different salts, from Aluminum to Zinc, in a total of over 7,000 different specifications. Dr. Paul Lohmann® supplies its specialty salts worldwide to customers in the pharmaceutical industry, food sector, food supplements, cosmetics and – under the Lohtragon® brand – to customers in industrial applications.

Lohtragon® stands for unique competences in manufacturing, optimizing and developing metal salts for a broad variety of industrial market segments. Established in diversity, tailor-made for you, your application and your process - our solution for your challenges!