



Enhanced  
Algae  
Cultivation

Lohtragon®

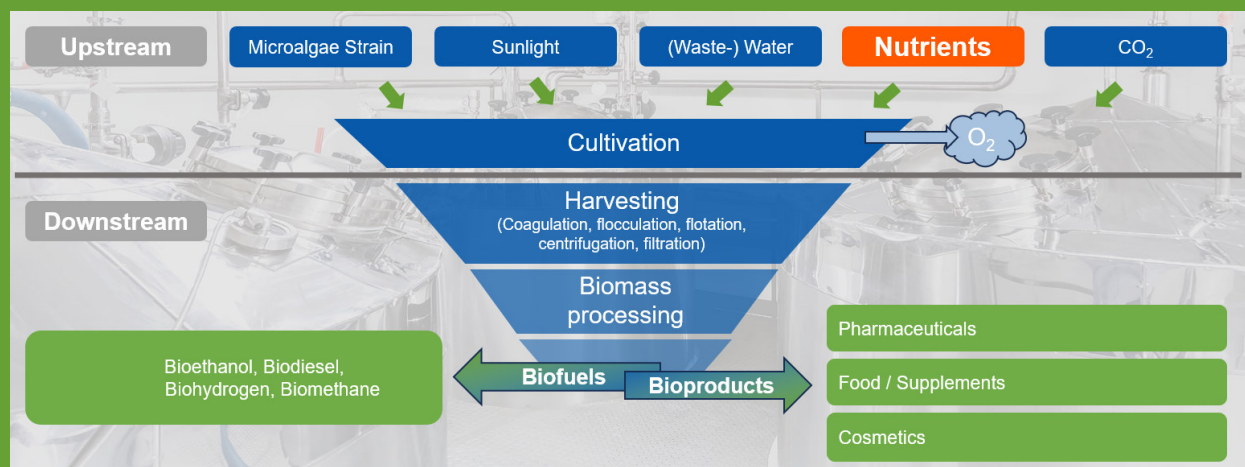
Crystallizing Solutions

## Enhanced Algae Cultivation with Lohtragon® BT Nutrients

### Create the Ideal Algae Cultivation Environment for Maximum Yield

Algae play an important role in addressing today's urgent environmental and sustainability challenges, leading to remarkable bioproducts derived from algae. From their key role in the Earth's oxygen and carbon cycles to their wide-ranging applications as a raw material in pharmaceutical segments, cosmetics, food and supplement industry, biofuels, and wastewater treatment, the algae potential is enormous.

For maximum yield, the establishment of the ideal algae cultivation environment is crucial, while bringing up various challenges. Several key factors influence the cultivation and harvesting outcome, like:



The right combination of nutrients is vital for algae growth and development, directly impacting the cultivation outcome and the efficiency of harvesting steps.



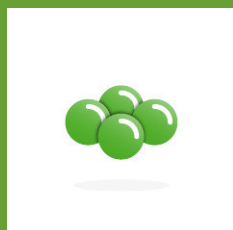
Lohtragon® BT products deliver tailored nutrient solutions for the specific needs of each algae strain, designed with precise ratios and quality assurance to ensure efficient and reliable fermentation processes and optimum growth conditions.

### Improve your Algae Culture Media with Lohtragon® BT Nutrient Concepts

Properly formulated nutrients are essential for fostering healthy microbial growth and achieving targeted, fine-balanced, biological outcomes. With our Lohtragon® BT concepts we focus on the close relationship between nutrients and algae growth, enhancing the efficiency and scalability of algae-based biotechnological processes.

Our nutrient concepts – ranging from pure substances, to premixes, stock solutions and encapsulation technologies – cover a full range of macro- and micronutrients. They are the result of extensive research and industry expertise, aimed to deliver predictable and high-quality results.

### Lohtragon® BT Nutrients for Targeted Algae Fermentation Processes



Substances



Premixes



Stock Solutions



Encapsulation

## Enhanced Algae Cultivation with Lohtragon® BT Nutrients

### Customized Solutions for Large-scale Operations

Specialized in inorganic chemistry, we offer ongoing support in crafting precise fermentation media. Our team is dedicated to customize the Lohtragon® BT nutrient components to fit the algae specific needs. Leveraging a diverse portfolio of metal salts, including iron, zinc, copper, manganese and many more, as well as a deep understanding of their modification and formulations, we support to create the optimally defined culture media. Contact us!

Please find in the following a shortlist of our Lohtragon® BT offering based on pure substances. The classification into nutrients and buffers is only indicative as most substances can act as both nutrient and buffer.

Lohtragon® BT Nutrients	CAS no.
Ammonium Sulfate	7783-20-2
Calcium Chloride 2-hydrate	10035-04-8
Copper(II) Sulfate 5-hydrate	7758-99-8
Ferric Ammonium Citrate	1185-57-5
Ferric Choline Citrate	1336-80-7
Ferric Citrate	3522-50-7
Ferric Pyrophosphate with Sodium Citrate	85338-24-5
Ferrous Sulfate 7-hydrate	7782-63-0
Magnesium Chloride 6-hydrate	7791-18-6
Magnesium Sulfate 7-hydrate	10034-99-8
Manganese(II) Sulfate 1-hydrate	10034-96-5
Potassium Chloride	7447-40-7
Sodium Chloride	7647-14-5
Sodium Sulfate, anhydrous	7757-82-6
Zinc Sulfate 7-hydrate	7446-20-0

Lohtragon® BT Buffers	CAS no.
Ammonium Acetate	631-61-8
Ammonium Formate	540-69-2
Potassium Acetate	127-08-2
Calcium Acetate	62-54-4
Calcium Formate	544-17-2
Monopotassium Phosphate	7778-77-0
Dipotassium Hydrogen Phosphate	7758-11-4
Sodium Acetate anhydrous	127-09-3
Sodium Acetate 3-hydrate	6131-90-4
Sodium Bicarbonate	144-55-8
Sodium Carbonate	497-19-8
Trisodium Citrate 2-hydrate	6132-04-3
Sodium Formate	141-53-7
Sodium β-Glycerophosphate	819-83-0
Monosodium Phosphate, anhydrous	7558-80-7
Monosodium Phosphate 1-hydrate	10049-21-5
Monosodium Phosphate 2-hydrate	13472-35-0
Disodium Phosphate anhydrous	7558-79-4
Disodium Phosphate 2-hydrate	10028-24-7
Disodium Phosphate 7-hydrate	7782-85-6
Disodium Phosphate 12-hydrate	10039-32-4
Sodium Propionate	137-40-6
Sodium Succinate 6-hydrate	6106-21-4

## Enhanced Algae Cultivation with Lohtragon® BT Nutrients

### At a Glance: Why Choosing Lohtragon® BT Nutrient Concepts?

Nutrients are essential for algae growth in industrial biotechnology. The Lohtragon® BT nutrients enable, amongst others, biochemical and enzymatic processes that are crucial for the algae to produce carbohydrates, proteins, and lipids. Optimize your algae cultivation and productivity with Lohtragon® BT products and benefit from:



#### Maximum Yield: Establish the ideal algae growth environment

- ◆ **Customizable Nutrient Setup:** Choose from a wide range of macro- and micronutrients tailored to specific algae strains, including common trace elements like iron, zinc, and copper
- ◆ **Precision-Formulated:** Get exact nutrient ratios needed, preventing deficiencies or toxicity
- ◆ **Enhanced Bioavailability:** Chelating agents improve solubility and uptake of trace elements



#### Efficient Fermentation: Ensure reliable and efficient algae fermentation processes

- ◆ **Ease of Use:** Simplify the nutrient addition with premixes and stock solutions
- ◆ **Scalability:** Adapt nutrient solutions for large-scale operations
- ◆ **Quality Assurance:** Rely on stringent quality controls for reliability and reproducibility



#### Regulatory Compliance: Adhere to standards for food, pharmaceuticals, and cosmetics

Dive deeper into our concepts and your values [watch our dedicated biotech webinar](#). Connect with us and benefit from your individual Lohtragon® BT nutrient mix for enhanced algae growth and productivity, enabling sustainable solutions tailored to specific needs and cultivation conditions, while adhering to regulatory standards.

## Contact Us



+49 5155 63-5888



[contact@lohtragon.com](mailto:contact@lohtragon.com)



[www.lohtragon.com](http://www.lohtragon.com)

### 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!

#### Established Products

By choosing Lohtragon® products, you benefit from direct manufacturer sourcing and our "Made in Germany" quality and reliability promise.

#### Joint Developments

From concept phase to tailored product optimization, we are your partner to solve any development challenge.

#### Expert Services

Rely on services from our R&D, application technology, regulatory affairs, logistics, quality departments and more. We fully support you in all areas.