

# Alpha Cleantec AG

## Newsletter March 2023

Dear Madam or Sir,

We hope this email finds you well and healthy. Today we are sending you our Newsletter containing the March updates. This month we exhibited and participated in four exhibitions: Aqua Netherlands 2023, Gorinchem-Netherlands, Biogas Expo 2023, Birmingham-UK, MUT 2023, Basel-Switzerland and SIFER 2023, Lille-France. These were excellent opportunities to present our solutions for vegetation control, soil and water decontamination, and biogas generation units in wastewater plants. We also enjoyed the technical presentations, relevant discussions, meetings with potential customers, partners, and networking.

From our R&D department, we are happy to provide you with a new update regarding customer projects.

### *A Feasibility Study with one of the EU railway authorities.*

**The Problem:** The feasibility study was done for one of the EU railway authorities. The challenge was simple and safe removal of historical **gravels (ballast) with asbestos**. For the proof of concept, we built a laboratory model of the contaminated ballast as similar as possible to the real situation on the field.

**The Objective:** The customer intends to remove the ballast rapidly, simply, and cost-effectively with standard equipment and with minimum and controlled risk to the employees. The three main targets were: A) no particles in the air. B) minimum sticking of the stones. C) maximum stone surface coverage by ACTs polymer.

**The Solution:** During the feasibility study, we proved that our polymer could be applied as an efficient material for contaminated ballast removal with a minimum risk to the working team.

Before



After



You are facing similar challenges in your operations? Then please feel free to contact us.

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### About Alpha Cleantec AG

We believe that our eco-system requires looking after so we have a world worth living in to pass to our next generations. Decontamination of soil and water from hazardous contaminants plays a major role in this regard, in our view. This is why we established Alpha Cleantec AG as an environmental technology company in 2016 with a vision to provide safe, green, rapid, efficient and cost effective technologies to resolve environmental harms and hazards caused by inadequate human and industrial activities.

For Decontamination for a wide range of contaminants, see table of contaminants below, we provide two technologies, AFA and SOA, achieving decontamination ratios of up to 97% in just hours (such as Hydrocarbons, BTEX, Petroleum leftovers, Aromatics, PAHS, Chlorinated Solvents, PCBs, Dioxins as well as Pesticides and Herbicides) to be applied for soil, groundwater, wastewater and railway ballast treatment.

For wastewater facilities we have developed based on our proprietary technology a process allowing to pretreat sludge before the digester, thereby significantly increasing biogas generation (up to 50%) and decreasing dry sludge disposal at the end of the process (up to 20%).

For Vegetation control we have developed a process based on an environmentally friendly mixture of inorganic salts that generates concentrated (non-Glyphosate) herbicide absorbing water from the plants and drying the plant including the roots (without changing the salinity of the soil).

### Table of contaminants treatable by our technologies

CONTAMINANTS	IN-SITU		ON SITE	
	SOA	AFA	SOA	AFA
<b>BTEX</b>				
Benzene	*	*	*	*
Toluene	*	*	*	*
Ethylbenzene	*	*	*	*
Xylene	*	*	*	*
<b>PETROLEUM HYDROCARBONS</b>				
Gasoline Range Organics (GRO)	*	*	*	*
Diesel Range Organics (DRO)	*	*	*	*
Oil Range Organics (ORO)	*	*	*	*
<b>AROMATICS</b>				
Chlorobenzene	*	*	*	*
Bromobenzene	*	*	*	*
Dichlorobenzene	*	*	*	*
Nitrobenzene	*	*	*	*
Phenol	*	*	*	*
Styrene	*	*	*	*
Naphthalene	*	*	*	*
Trichlorobenzene	*	*	*	*
Trimethylbenzene	*	*	*	*
<b>PAHS</b>				
Phenathrene	*	*	*	*
Naphthalene	*	*	*	*
Acenaphthylene	*	*	*	*
<b>CHLORINATED SOLVENTS</b>				
Tetrachloroethylene	*	*	*	*
Trichloroethene	*	*	*	*
Dichloroethene	*	*	*	*
Vinyl chloride	*	*	*	*
Tetrachloroethane	*	*	*	*
Trichloroethane	*	*	*	*
Dichloroethane	*	*	*	*
Dibromochloroethane	*	*	*	*
Bromodichloromethane	*	*	*	*
Carbon tetrachloride	*	*	*	*
Chloroethane	*	*	*	*
Chloroform	*	*	*	*
Chloromethane	*	*	*	*
Chlorotoluene	*	*	*	*
Methylene chloride	*	*	*	*
<b>PCBS</b>				
<b>DIOXINS</b>				
<b>PESTICIDES AND HERBICIDES</b>				
Glyphosate	*	*	*	*
Goal	*	*	*	*

We will inform you about our upcoming projects, pilots and case studies. Please let us know if you do not wish to receive our company news.

Kind regards

Mit freundlichen Grüßen

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