

Dear Madam or Sir,

We hope this email finds you well and healthy. Today we are sending you our Newsletter containing the November updates. This month we exhibited and participated in two exhibitions and events: ADIPEC 2022, Abu Dhabi, UAE, and Ecomondo, Rimini, Italy. It was an excellent opportunity to present our solutions for soil and water decontamination and sludge treatment for biogas generating wastewater plants. We also enjoyed the technical presentations, relevant discussions, meetings with potential customers, and networking.

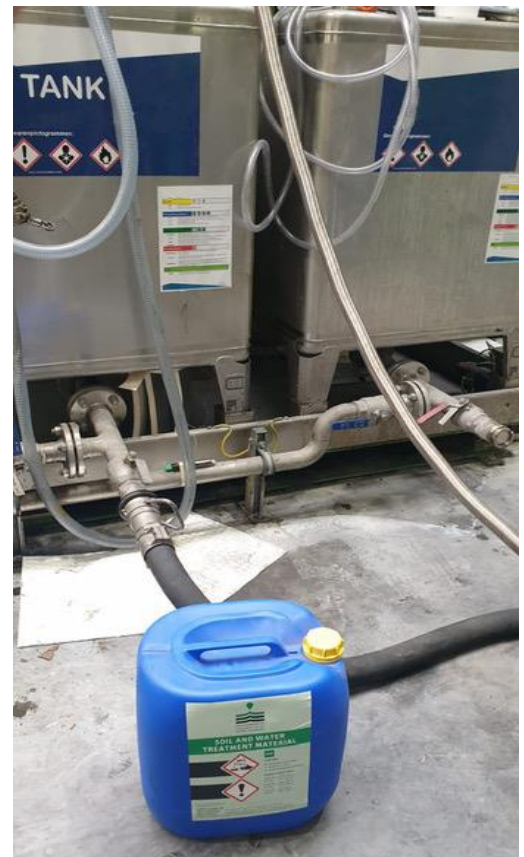
From our R&D department, we are happy to provide you with a new update regarding customer projects.

A pilot test with an EU manufacturer of insulation boards.

The Problem: The pilot test was with an EU manufacturers of insulation boards and panels. One of the challenges of this manufacturing is the generation of **industrial wastewater** with solvents and dioxane leftovers as a process byproduct. The target of the pilot was wastewater decontamination and reduction of the flashpoint of this water.

The Objective: Therefore, the customer intends to rapidly, simply, and cost-effectively decontaminate the **industrial wastewater** to meet the EU threshold value regulation for the current contaminant.

The Solution: During the pilot, we implemented our SOA-AFA solution as a treatment agent based on a batch treatment approach. **We expect to share the first results in the following month.**



Maybe you face similar challenges in your business. Then please feel free to contact us.

<https://www.linkedin.com/company/alpha-cleantec-ag/>



Alpha Cleantec AG

Newsletter November 2022

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

We plan to inform you in future whenever we accomplished projects, pilots or case studies. Please let us know if you do not wish to get our company news.

Kind regards

Mit freundlichen Grüßen

Andreas Danner

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