


Dear Madam or Sir,

We hope this email finds you well, healthy, and fully charged with energy after the pleasant winter holidays. Today we send you our next Newsletter containing the January updates.

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

### *A Successful pilot test with one of the EU manufacturers of insulation boards.*

<b>The Problem:</b>	At the end of last year, we successfully accomplished a pilot test with one of the EU manufacturers of insulation boards and panels. One of the challenges of this manufacturer was the generation of <b>industrial wastewater</b> with solvents and dioxane leftovers as a process byproduct. The target of the pilot was wastewater decontamination and increasing the flash point of this water.	
<b>The Objective:</b>	Therefore, the customer intends to rapidly and cost-effectively decontaminate the <b>industrial wastewater</b> from organic materials and increase wastewater flash point to meet the EU threshold value regulation for the current contaminants.	
<b>The Solution:</b>	We have implemented our SOA-AFA solution as a treatment agent based on a batch treatment approach. As shown below, our reagent is an efficient reagent for this type of wastewater, with a conversion of 87-90% after a single treatment. In addition, our agent efficiently increased the flash point of the wastewater.	

### **Results:**

Sample No.	Contaminant	Before treatment (ppm   mg/L)	After treatment (ppm   mg/kg)	Conversion (%)	Flash point- Before treatment (°C)	Flash point- After treatment (°C)
1	1,4-Dioxane	321,000	<b>33,239</b>	90	30	50-60
	TOC	324,000	41,560	88		
2	1,4-Dioxane	321,000	34,700	90	30	50-60
	TOC	324,000	42,361	87		

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

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



### 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 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

**Alpha Cleantec AG**

Phone: +49 (0) 6221 64924 68

info@alphacleantec.com · [www.alphacleantec.com](http://www.alphacleantec.com)