



WESTRAND
Ingénierie de l'odeur

PRESENTATION

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1. WESTRAND presentation and history

Chemical deodorizing using neutralisers, is a new developing profession, where WESTRAND since **1992** has had over **14 years experience** in the field and benefits from a professional **know-how**.

WESTRAND's speciality is the treatment of industrial odour problems. We produce and sell a series of **patented molecules** able to neutralize odours, and we take care of the surrounding engineering.

Our process is based on a chemical reaction that destroys the odours without masking or replacing them with another one.

We have built a **complete range of patented efficient principles** are available, based on a combination of natural and synthetic oils containing a cocktail of aldehyds.

Our activity is based on **performance** and **reliability**.

WESTRAND activity has become a complete activity :

- supply of principle active
- installation of an adapted engineering
- maintenance
- results obligation

We have been servicing industrial companies over 10 years and have developed a large activity in the deodorisation area of :

- **Waste Field**
 - landfill, rubbish tips, incinerator, compost plant, sludge, green waste, household garbage...
- **Sewage water treatment**
 - Sewage water treatment plant, sewer network, lagoon...
- **Industries**
 - food industry, breweries, paper-mill, chemistry, quartering...
- **Agriculture**
 - Liquid manure of pig, livestock farming, poultry farming, manure spreading...

Today we count more than 500 customers all around the world, with a securing of loyal customers around 95%.

2. WESTRAND products

A. Chemical reactions

Our products are composed of natural and synthetic essential oils comprising following functions :

- Aldehyds
- Ketones

These functions are able to neutralize chemically following bad smelling compounds :

- ammonia
- amines
- H₂S
- Mercaptans

These gazes are mainly found in waste, rubbish, compost, sewage...

They are among the main vectors of olfactive nuisances in the environment.

You will find enclosed in Annex n°1, the chemical reactions.

B. Others reactions

This chemical action is completed by two phenomena's :

First : odour reduction by olfactive neutralisation . It is a physiological process in which a bad smell can be neutralised by a good odour, so that human nose can't detect any odour at all.

(Published for the first time by Zwaardemaker et all., Arch. Anat., Physiol abt.) 1900, 423-432.

For example : Coumarine can be compensated by scatole.

Eucalyptol by ethyl mercaptan...

Second : 2 aldehyds together act better than each one separately . (synergic effect). In our products, we use precise aldehyds associations , to increase their odour destroying effect.

These two points can explain why we obtain also very good results against odours from solvents, petroleum, rubber, yeast...

C. The patents protecting our products are followings

- French patent n° 2 599 257 from the 29/05/1986
- Additional certificate n° 2 623 717 from the 1/12/1987
- European patent n°0401140 from the 28/05/1990

D. Tests

We (or our customers) made some tests of efficiency in different situations :

- Efficiency on household garbage (landfill)
- Efficiency on sewage water (pumping station)
- Efficiency on liquid manure of pig...

In many cases, the products are tested and validated *in situ* by a panel of different people (neighbours, workers...).

E. Toxicity

Our products are free from any toxicity, for human and for environment. They have been successively tested in many fields by Official French laboratories and under the supervision of the French competent authorities . All legal certificates have been issued and are available at our end. They are :

- biodegradable
- non toxic for the skin
- non toxic for the eyes
- non phytotoxic
- non toxic for aquatic fauna and flora

They can be used inside closed areas where people operate, as attested by the Occupational Medicines.

All of them are registered on the IFRA' list (International Fragrance Association).

3. Different kinds of treatments

A. Liquid treatment by incorporation

Neutralizer of liquid odours :

- Sewage water of pumping station or of treatment plant
- Liquid sludge
- Garbage juice
- Liquid manure of pig
- Effluents of the food industry, milk plant...



- Utilisation of a dosing pump system with a rule of pre-dilution
- Range of product = INHITONE
- Working time = 5 to 7 days

B. Air treatment

Deodorisation of :

- Outside work (basin, storage area, landfill, compost platform...)
- Buildings
- Chimneys...

Deodorisation of the sewage treatment plant of CAGNES SUR MER :

