



## Environmentally Friendly Solutions For Industry

### ■ The “Green” alternative for the treatment of water cooling circuits

**MEXEL INDUSTRIES** is an innovative French company created in 1990. Mexel is dedicated to the development and the manufacture of innovative solutions to preserve the environment in accordance with sustainable development.

#### ■ MEXEL 432® A process for treatment and protection of water cooling circuits

The Mexel 432® process offers a “green” alternative to traditional methods. Mexel 432® is technically superior and financially more cost effective compared to the usual techniques of using chlorine or bromine oxidants, ferrous sulphates or anti-scaling and anti corrosion agents.

#### ■ MEXEL 432® Technical benefits: “All in ONE”

Anti Fouling	Anti Corrosion	Repellent effect on mussels
Anti Scaling	Mud dispersant	Biodegradable

#### ■ Applications:

Mexel 432® offers a global solution for the protection of open and semi open cooling circuits.

Thermal, Nuclear and Hydro Power Plants	Ships
Industrial Plants (Steel & Paper mills, Oil & Gas)	Irrigation
Water Networks	Sewage Plants
Desalination Plants	Food Process Industries

#### ■ How MEXEL 432® works

The MEXEL 432® process acts as a filming agent, at molecular level. It is injected as a micro-dose (+/- 5 ppm) for a 30 minute duration once per day. This non-oxidant, tensioactive emulsion with dispersant properties will prevent micro and macro fouling, scaling, corrosion, bio-life, mud.





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Condenser Power Station  
Treated with MEXEL 432

Micro & Macro Fouling = Efficiency Degradation



Power Station Flow 22 m<sup>3</sup>/s –  
Open cooling circuit, Sea Water - Treated with MEXEL





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### ■ Environmental Benefits

#### MEXEL 432®

- has no impact on the environment
- is not toxic to Mammals
- has an over two year shelf life
- is biodegradable,
- is non oxidant,

### ■ Certifications

#### MEXEL 432® conforms to most international regulations, including:

- US Environmental Protection Agency (US EPA)
- OSPAR in North Sea
- EC Directive 98/8 applicable to biocides (progress)
- APVMA Australia
- Ministry of Health, Spain

In 2000, the European Union's Integrated Pollution Prevention Control Bureau (IPPC) has classified MEXEL 432® as the "Best Available Techniques (BAT's) applicable to Industrial Cooling Systems".

### ■ References:

#### Nuclear and Conventional Power Plants:

USA	France	Tunisia	Guadeloupe	Italy	Australia
Malta	Greece	Algeria	Spain	Benelux	China
Hong Kong	Mexico	Morocco	West Indies	Chile	Poland

#### Ships

- Cargos: CGM, SNCM, Gascean, CMN, Les Abeilles, Delom, Genavir, Blue Star
- France: Nuclear Aircraft Carrier Charles de Gaulle and other French Navy fleet
- U.K: 3 nuclear submarines. Spain marine: Patrouillère Centinelle

#### Oil and Gas:

- Naphta-chimie petrochemical plant, Shell, Socimine, Elf Petroland,
- Maersk Oil & Gaz, Samir, Total offshore platforms, Chilean LNG Project

#### Water networks:

- Urban sea water grid, residential Buildings, hospitals, fire fighting hydrant networks.





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**Mexel 432  
injection system**



**Power Station  
water outlet**



**Power Station  
water outlet**

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