

DIAPROSIM®

UNE MARQUE DU GROUPE **ALM** INTERNATIONAL

Water quality, our priority

INDUSTRIAL WATER TREATMENT



CERTIFIED PRODUCTS, FRENCH AND EUROPEAN MANUFACTURING



DIAPROSIM®

UNE MARQUE DU GROUPE ALM INTERNATIONAL

MORE THAN 60 YEARS OF EXPERIENCE IN INDUSTRIAL WATER TREATMENT

History

2010 After having been exclusive distributor of **DIAPROSIM®** products, **ALM** INTERNATIONAL S.A. becomes the owner of the brand and the formulations.

Dow Chemical acquires ROHM & HAAS' Chauny site, currently Dow Water & Process Solutions.

1995 ALM INTERNATIONAL becomes distributor of the DIAPROSIM® range for ROHM & HAAS.

1962 DIAMOND SHAMROCK and PROSIM become DIA-PROSIM™, products for industrial water treatment manufactured by ROHM & HAAS.



FULL RANGE OF WATER TREATMENT PRODUCTS COMPLIES WITH CURRENT REGULATIONS











CORPORATE SOCIAL RESPONSIBILITY

The Group **ALM** INTERNATIONAL integrates a CSR approach in its practices and exchanges with all of its partners.

The group's companies, and its brand **DIAPROSIM**® affirm their societal commitment and environmental within their businesses and their decision-making processes.











A PERSONALIZED APPROACH

DIAPROSIM® puts at your service an experienced, dynamic and responsive team that ensures you:

- ☑ Diagnosis of the condition and treatment of installations
- ☑ Water analysis (strategic points)
- ☑ The recommendation of adapted solution and treatment
- ☑ The definition or improvement of the pre-treatment
- ☐ The transfer of skills to your qualified personnel by training technicians in the use of products

CERTIFIED PRODUCTS, MADE IN FRANCE

The range **DIAPROSIM**® complies with current regulations *REACH (CE) N*°453/2010, *CLP(CE) N*°1272 / 2008,

environmentally conscious and ISO9001 and ISO14001 certified.

A WIDE RANGE OF PRODUCTS SUITABLE FOR

- Low, medium and high pressure boiler
- Hot water loop
- · Closed, semi-open, open cooling circuit
- Sanitary water, waste water
- Other specific applications

A KNOW-HOW IN MANY SECTORS

Food industry (Brewery, sugar factory...), Energy production, Industry oil and mining, Stationery, Printing, Public service, Transport (maritime, railway...), Chemical industry, ...

RECOMMENDED BY MAJOR BRANDS: Wärtsilä, Man, Caterpillar, ...

DOSAGES AND FORMULATIONS

We define the dosages of our products according to the characteristics of each installation.

We have a team of chemical engineers ensuring a complete and specific expertise for each of our customers' processes, whatever their field of activity and their application.

OUR OBJECTIVES

- ☑ REDUCTION of maintenance costs and frequencies
- ☑ REDUCTION of consumption
- ✓ INCREASED yields
- ☑ **INCREASING** the longevity of installations









DIAPROSIM® AREAS OF EXPERTISE

CLOSED COOLING CIRCUITS

DIAPROSIM® RD11 Powder Multimetal protection * (absence of aluminum)

DIAPROSIM® RD15 Liquid

Multimetal protection * (absence of aluminum)

DIAPROSIM® RD25Multimetal protection *

(of which aluminium)

* Compatible with glycols

DIAPROSIM® EC10N Liquid
Multimetal protection
(of which aluminium)

DIAPROSIM® ES111RDS Liquid Multimetal protection (absence of aluminum)

* Compatible with glycols

☑ ANTIFREEZE PRODUCTS WITH ADDITIVE

DIAPROSIM® RDHConcentrated MEG product to be diluted according to desired protection (no aluminium)

DIAPROSIM® MPGEL

Concentrated MPG product
to be diluted according
to the protection required

DIAGEL 6N Liquid
Concentrated MEG product
to be diluted according to desired
protection (recommended for
aluminum protection).

DIAMIGEL 6NReady-to-use MEG (recommended for aluminum protection)

☑ CURATIVE TREATMENTS

DIAPROSIM® RD13 Powder Removal of scale deposits

DIAPROSIM® Z520 Liquid Bio-degreaser. Cleaning oil and grease contaminated circuits

DIAPROSIM® B150 *Liquid* Silica and iron oxide dispersant

DIAPROSIM® Z550 Liquid Slow de-silting

OPEN AND SEMI-OPEN COOLING CIRCUITS

☑ TREATMENTS ANTI-SCALE / DISPERSANTS

DIAPROSIM® B113 Liquid
Organic dispersant

DIAPROSIM® Z100L Liquid
Phosphate-based dispersant

☑ TRAITEMENTS ANTICORROSIONS

DIAPROSIM® Z51 Liquid Specific copper inhibitor

☑ TREATMENTS MULTIFUNCTIONAL

DIAPROSIM® Z160 Liquid
Anti-Scale / Anti-Corrosion
DIAPROSIM® Z122LN Liquid
Anti-Scale / Anti-Corrosion

☑ BIO-DISPERSANTS / DEGREASERS

DIAPROSIM® Z320

DIAPROSIM™ Z520 Liquid Bio-degreaser

☑ BIOCIDES

Biocide (isothiazolone)

DIAPROSIM® Z330N

Biocide (DBNPA)

DIAPROSIM® FB9A3

Liquid

Liquid

DIAPROSIM® FB9A3 Liquid Biocide (quaternary ammonium)



PROBLEMS ENCOUNTERED

CORROSION

By the effect of oxygen and carbon dioxide dissolved in process water







TEST AND TRIAL DIAPROSIM® RD25





Demineralized water T° 20°C (after 40 days)

Demineralized water + **DIAPROSIM® RD25** T° 20°C (after 40 days)

RESULTS

Heat exchange constant and optimal

- ☑ REDUCTION purge frequencies.
- ✓ **DECREASE** water consumption
- ✓ OPTIMIZATION cleaning operations
- ☑ PREVENTION

 of the phenomena of development of the bio film and the risk of legionnelle
- PREVENTION corrosion phenomena and scaling
- ✓ INCREASE in heat exchange and production yields

AREAS OF EXPERTISE

BOILERS / HOT WATER LOOPS

☑ PH / ADJUSTMENTS ALCALINISERS

DIAPROSIM® B115 Liquid pH adjustment and dispersant

DIAPROSIM® CIPOby Liquid pH adjustment

☑ OXYGEN REDUCERS

DIAPROSIM® 820 Liquid Oxygen reducer,

low and medium pressure

DIAPROSIM® B120 Liquid Oxygen reducer,

High Pressure

DIAPROSIM® CIP2 Powder Low and medium pressure

DIAPROSIM® B116 Liquid

Low and medium pressure **DIAPROSIM® B108** *Liquid*

Tannin base, use up to 20 Bars

☑ ANTI-SLIP TREATMENT

DIAPROSIM® AP100 *Liquid* Low and medium-pressure boilers

☑ DISPERSANTS

DIAPROSIM® B150 Liquid
Silica and iron oxide dispersant
DIAPROSIM® B113 Liquid
Dispersant
low and medium pressure

DIAPROSIM® VN11 Liquid
Low and medium boiler pressure
DIAPROSIM® VEC8L Liquid
Steam boiler for use Food

☑ APPLICATIONS SPECIFIC

DIAPROSIM® DPL50 Liquid
Sanitary water anti-corrosion

DIAPROSIM™ B113 Liquid
Seawater evaporator dispersant

SUGARS

Thanks to its experience in the sugar industry, **DIAPROSIM®** offers you a range of **FDA Approved** products to guarantee and maintain your installations and increase your yields.

☑ TREATMENT OF EVAPORATORS

DIAPROSIM® Z605S - Scale inhibitor

DIAPROSIM® Z610 - Additive for alkaline cleaning of evaporators

DIAPROSIM® RD13 - Acid cleaning of evaporators

☑ TREATMENT MILLS AND DECANTERS

DIAPROSIM® AB13 Biocide

SANITANT OA Biocide

DIAPROSIM® FOA 100S Defoamer

ALM FLO 40 Flocculant

RESULTS

- ☑ **INCREASE** the duration of the production cycles
- **☑ REDUCTION** sugar losses
- ☑ IMPROVEMENT from the decantation

PROBLEMS ENCOUNTERED





CORROSION

SCALING

RESULTS

Heat exchange constant and optimal

- ▼ REDUCTION purge frequencies.
- ✓ **DECREASE** water consumption
- ☑ PREVENTION scaling phenomena and pipe clogging
- ✓ **DECREASE** frequency of operations maintenance
- ✓ **INCREASE** production yields



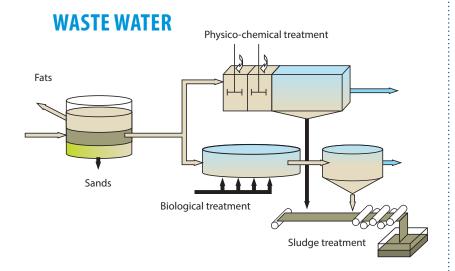
Hot water loop



Sugar refining

DIAPROSIM®

AREAS OF EXPERTISE



COMPLETE SOLUTIONS

DIAPROSIM® offers complete waste water treatment solutions adapted to your needs thanks to its partnerships with waste water treatment professionals.

A wide range of products is available for wastewater treatment, in order to advise you as well as possible tests on your effluents must be carried out on site for a proposal adapted to your needs.

- ☑ Physico-chemical treatment
- ☑ Biological Treatment



EQUIPMENT AND LABORATORY PRODUCTS

LABORATORY PRODUCTS

- ✓ LABORATORY REAGENTS
 All water analyses (TA, TAC, TH, Cl-, etc.)
- ☑ GLASSWARE AND ACCESSORIES
 Beakers (all types), burettes, graduated test
 tubes, vials, Petri dishes
- ☑ DEVICES AND NSTRUMENTATION Balances, conductivity meters, ovens, field flocculators (Jar tests)
- ✓ **ANALYSIS KITS**Alkalinity TA/TAC, chlorides, DEHA, total hardness TH, hydrazine
- ✓ PORTABLE BRIEFCASES
 Professional multi-parameter analysis kit for cooling tower, sewage treatment plant, etc.

DOSING EQUIPMENT

- ✓ PREPARATION TRAYS All volumes
- ✓ DOSING PUMPS All pressures, all flow rates, ATEX zones, skid





PRETREATMENT AND POTABILIZATION

DIAPROSIM® offers, beyond its range of water treatment products, all the equipment necessary for the implementation of the treatment and its monitoring.

- » Diagnosis of pretreatment installations: Filtration, softener, reverse osmosis...
- » Driving assistance
- » Recommendation of suitable cleaning product
- » Study and proposal of water purification solution



SOFTENER

Elimination of water hardness (calcium, magnesium)

DEMINERALIZATION UNIT

Reduction or elimination of mineral salts, production of demineralized water

SAND FILTER

Disposal of suspended matter

ACTIVE CHARCOAL FILTER

Chlorine removal

ULTRAFILTRATION MODULE

Removal of high molecular weight particles (size > 1nm), water disinfection

DISINFECTION / UV STERILIZATION UNIT

UV rays are used for their germicidal and bactericidal action in the disinfection of water

CONSUMABLES

MINERALITY / NEUTRALITY

Neutralization of water, pH adjustment

ION EXCHANGE RESINS

Drinking water treatment, industrial water treatment, mixed beds

MEMBRANES

All types

SILEX

All particle sizes

ACTIVE COAL

Drinking and industrial water treatment

CARTRIDGES

Coiled, heat-welded, activated carbon cartridges

DIAPROSIM™ RO SERIES

Membrane treatment and cleaning

DAIPROSIM PRODUCT FOR OSMOSIS SYSTEMS

RO-400 - Scale inhibitor

RO-113 - Scale inhibitor

RO-A&B - Cleaning of membranes

SANITANT OA - Cleaner, disinfectant of resins and filters







DIAPROSIM® www.diaprosim.com www.alm-inter.com www.alm.group







GROUPE ALM INTERNATIONAL

PRODUITS • SOLUTIONS • INNOVATIONS • SERVICES

Spécialiste du marché africain depuis 1979

DIAPROSIM®

Water quality, our priority

DISTRIBUTORS AND PRESENCE



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