DIZinfect
MOBILE PLANTS
by GSOS

PRODUCTION OF NEUTRAL HYPOCHLOROUS ACID (HOCL)

PRODUCED WITH ECA TECHNOLOGY

Converting Water into a Hygiene Ally

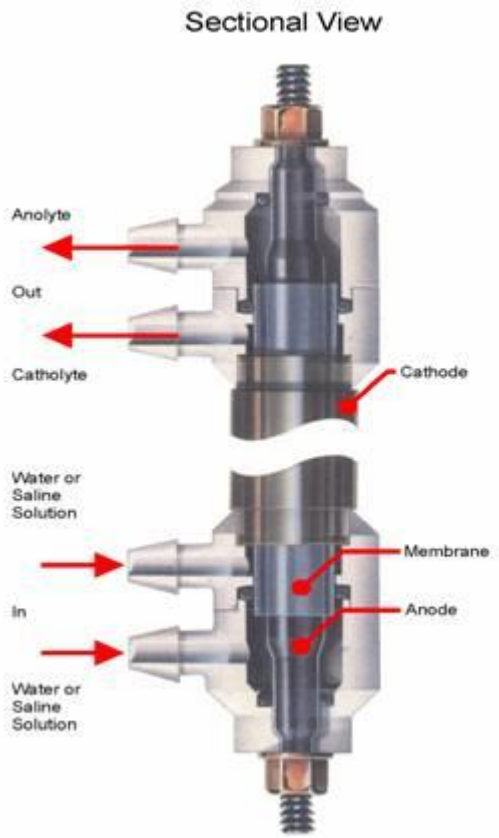
Water has always been a source of re-contamination

with ECA it is **converted** into a **powerful Ally**

How ECA solutions are made

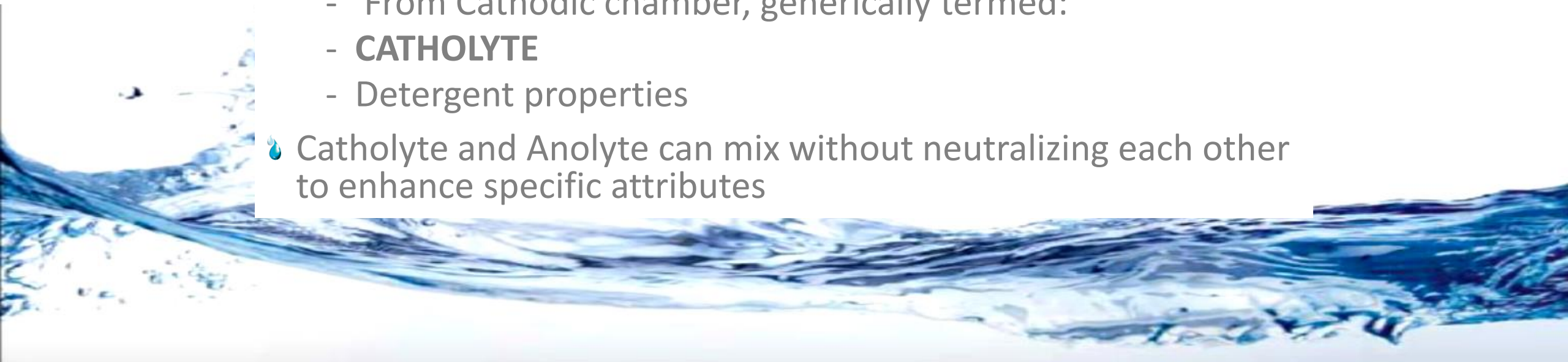
DIZinfect
MOBILE PLANTS
by GSOS

- Reactor core
- Outer cathode, ceramic membrane, inner anode.
- Membrane splits water into 2 chambers
- Brine flows into both chambers, current is passed between anode & cathode
- 2 distinct solutions harvested (separately) from each chamber



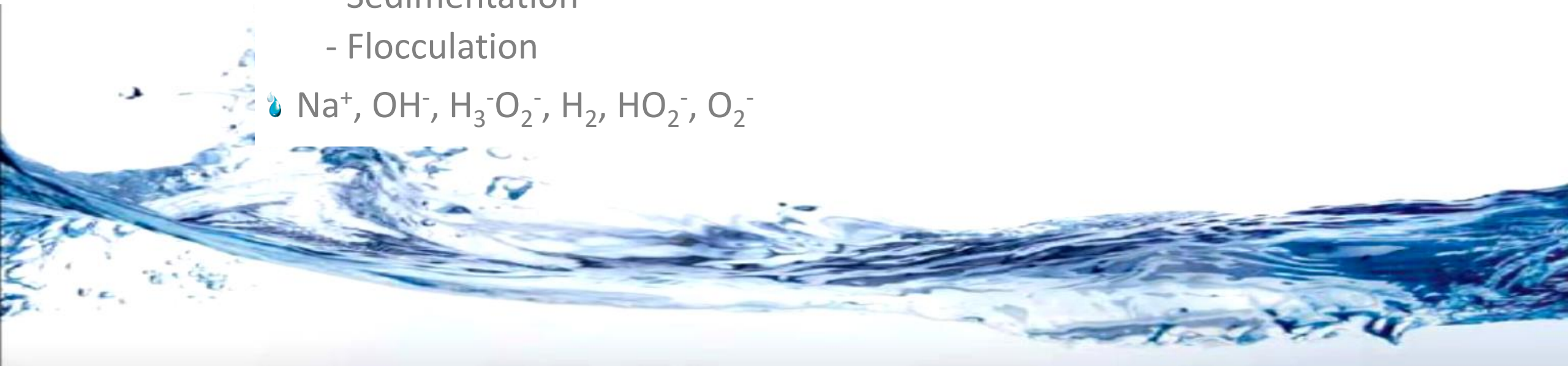
Two Unique Solutions

- ECA Solutions
  - Both detergent and disinfectant properties.
  - Effective at ambient temperatures (cold sterilant)
- Positive stream (carries a positive charge)
  - From Anodic chamber, generically termed:
  - **ANOLYTE** (ActSol™)
  - Disinfectant properties
- Negative stream (carries a negative charge)
  - From Cathodic chamber, generically termed:
  - **CATHOLYTE**
  - Detergent properties
- Catholyte and Anolyte can mix without neutralizing each other to enhance specific attributes



Catholyte (-'ve)

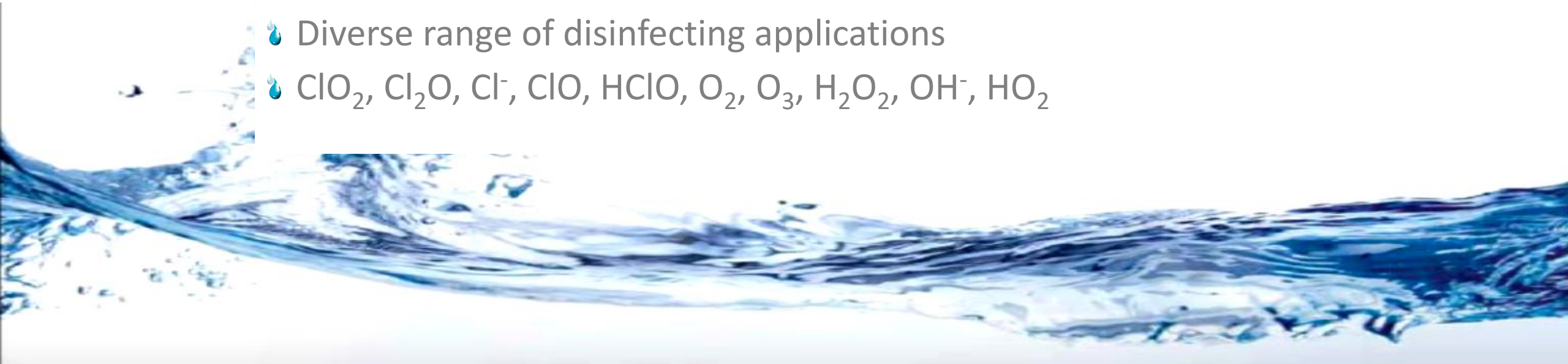
- Reducing solution (excess of electrons)
- Potent anti-oxidant (ORP> -900mV)
- Ph 9 to 12
- Surface Active Properties:
  - Cleaning – emulsification, saponification, peptisation.
  - De-agglomeration
  - Sedimentation
  - Flocculation
- Na^+, OH^-, $H_3{}^-O_2{}^-$, H_2, $HO_2{}^-$, $O_2{}^-$



Anolyte (+’ve)

DIZinfect MOBILE PLANTS by GSOS

- Oxidizing solution (ORP < +1000mV)
  - Range of natural mixed oxidant radicals
  - Low concentration BUT Synergistic action of radicals
- pH range 2.0 to 9.0 - different radical species
- Microbiocidal – disinfectant/sterilant
- Eliminates microbes “electrically”
- No resistance capacity
- Diverse range of disinfecting applications
- ClO_2, Cl_2O, Cl^-, ClO, HClO, O_2, O_3, H_2O_2, OH^-, HO_2



Benefits of ECA

- Reduced risk of spreading life threatening bacterial and viral diseases
- Significantly reduced water, energy, resource and human costs;
- Providing a better health care service to rural communities
- Reduced morbidity period with shorter convalescence.
- Stimulation of the local economy
- Enhancing image.
- Improving profitability.

PROFIT & IMAGE MAXIMISATION

Food Industry Applications

DIZinfect MOBILE PLANTS by GSOS

Process Applications:

- CIP /COP
- Real time / In process sanitation
- Biofilm control
- Shelf-life extension
- Quality Assurance
- HACCP compliant
- Reduce spoilage
- Substitute hazardous chemicals
- Effluent management

Bottling, Brewing & Beverage

DIZinfect MOBILE PLANTS by GSOS

- Dairies
- Breweries
  - Ingredient
  - Reduction of unwanted organisms
- Bottle washing
  - Disinfection
- General CIP

Benefits in Live Animal Farming

DIZinfect
MOBILE PLANTS
by GSOS

- Overall heard health
- Death due to diseases
- Delayed conception
- Feeding imbalances
- Cost benefits
- Safety of solutions – replacement of toxic chemicals
- On site generation of solutions
- Continues sanitation potential
- Quality Assured products
- Overall increase in productivity – increase in milk production
- Prevention is better than cure

Medical Applications

Sterilization and disinfection of surfaces in hospitals and Clinics

Not only surfaces of floors, laundries etc., but also surgical equipment

Endoscope Sterilization

- The Anolyte solution has been approved (FDA) for the sterilization of endoscopes.
- Many other medical instruments used on a daily basis could be sterilized using Anolyte.

Arthroscopic Rinsing

DIZinfect MOBILE PLANTS by GSOS

- During the arthroscopic rising procedure up to 30 litres of Normal or Ringers Saline are used per single joint.
- These solutions could be replaced with Electrolyzed Saline (Anolyte) which would act as a biocide during operation.

Medical Manufacturing

Intravenous (IV) drip manufacture:

- DIZinfect has non-chloride

  based ECA system in operation at an Intra-Venous (IV) solution production plant (Dismed Criticare, Midrand, RSA) for the past 4 years for the decontamination of IV bags in the packaging plant.

DESTROYING COVID-19 CORONAVIRUS

Surfaces Disinfection

Portable Dry Mist Disinfection

DIZinfect MOBILE PLANTS by GSOS

- Trains/Trams/Metro
- Bus
- Taxi
- Transport Terminals
- Ambulance
- Hospital & Clinics
- Schools
- Etc……

DESTROYING COVID-19 CORONAVIRUS

Persons Disinfection

Dry Mist Disinfection

DIZinfect MOBILE PLANTS by GSOS

- Dry Mist Tunnels
- Hand wash
- Mouth wash
- Etc……

DESTROYING COVID-19 CORONAVIRUS

Persons Disinfection

News Articles

Spray that costs pennies and kills viruses instantly could be a simple solution to Covid nightmare

Whether they're in China, Hong Kong or Japan, they've become a familiar

newsopener.com

Spray that costs pennies could be a simple solution to Covid-19 nightmare

www.fr24news.com

Coronavirus crisis: Spray that kills virus could END pandemic - but it's not being used

SCIENTISTS are urging the NHS to use a cheap and non-toxic spray to

www.express.co.uk

Spray that costs pennies could be a simple solution to Covid nightmare

Scientists, doctors and healthcare experts want to know why

www.dailymail.co.uk

DIZinfect MOBILE PLANTS by GSOS

Mobile Plant

DIZinfect MOBILE PLANTS by GSOS

20′ Standard Container

- **Plug&Play** concept: Supply Electrical Power and Water only
- Concentrated disinfectant available for **use after 24h** of function
- Autonomous Electrical supply using **solar panels in option**
- Developed for all types of transportation **by Road, Sea & Air**
- Ready for **relocation under 1 hour**

Mobile Plant

DIZinfect MOBILE PLANTS by GSOS

Generator Characteristics	DIZinfect C90	DIZinfect C120	DIZinfect C1000
Number of HOCl reactors	1	1	1
HOCl production per hour @ pH 6,5 (L)	90	120	1,000
HOCl Ph regulation range	HS 3.5 - 7.5 / LS 5 -7.5 dependent on inlet water pH	HS 3.5 - 7.5 / LS 5 -7.5 dependent on inlet water pH	HS 3.5 - 7.5 / LS 5 -7.5 dependent on inlet water pH
FAC of Anolyte @ pH 6,5 (ppm)	500	500	500
Salt consumption per litre of HOCl (in g)	LS ~1.5g / HS ~ 5g	LS ~1.5g / HS ~ 5g	LS ~1.5g / HS ~ 5g
Salt consumption per gram of FAC	LS ~ 3g / HS ~ 10g	LS ~ 3g / HS ~ 10g	LS ~ 3g / HS ~ 10g
Cell lifetime (Hours)	> 13,000	> 13,000	> 13,000
NaCl specification	Coarse food grade, purity >99% without Iodine, heavy metals and low scaling elements, preferably complying to standard DIN EN 973	Coarse food grade, purity >99% without Iodine, heavy metals and low scaling elements, preferably complying to standard DIN EN 973	Coarse food grade, purity >99% without Iodine, heavy metals and low scaling elements, preferably complying to standard DIN EN 973
Technical Specifications	DIZinfect C90	DIZinfect C120	DIZinfect C1000
Electrical Supply	110/220 VAC	110/220 VAC	380/415 VAC
Electrical consumption	LS ~0.5 KWH / HS ~ 1.0 KWH	LS ~ 1.0 KWH / HS ~ 1.8 KWH	LS ~ 4 KWH / HS ~ 12 KWH
Advised supply water characteristics	Hardness < 20ppm as CaCO3	Hardness < 20ppm as CaCO3	Hardness < 20ppm as CaCO3
	TDS <100 ppm	TDS <100 ppm	TDS <100 ppm
Supply water flow rate (minimum)	90L	120L	1.000 L
Supply water pressure	2-3 bar	2-3 bar	2-3 Bar
Waste	HS - dependent on pH of Anolyte / LS ~ 0,5% of total flow	HS - dependent on pH of Anolyte / LS ~ 0,5% of total flow	HS - dependent on pH of Anolyte / LS ~ 0,5% of total flow
Remote monitoring and management - OPTIONAL	Ethernet	Ethernet	Ethernet / Modbus / GSM
Recommended Brine tank size L	100L	100L	500 L
Recommended anolyte tank size	2000L	2000L	5.000 L
Recommended Concentrate tank material	PVC	PVC	PVC

DIZinfect
MOBILE PLANTS
by GSOS

GSOS Trading Ltd. • 5, Marine Court, D7, Triq Ta' Gidwet
Marsaskala MSK3610, Malta • Company #. C 95844

contact@gsos-europe.com • tél : + 33 607187770 / +356 79577958