

GAME-CHANGING SOLUTIONS FOR THE RAIL INDUSTRY



A&S
INTERNATIONAL



INCREASED
FUEL
EFFICIENCIES



OIL SPILL
& WASTE
MANAGEMENT



INSTANT REPAIR
SYSTEM FOR
HYDRAULIC HOSES



MAINTENANCE
LUBRICANTS
& CHEMICALS



WIRE ROPE
CLEANING
& LUBRICATION

Specialist Products for Railway : **Committed to Sustainability**

“Cutting emissions is vital for rail’s future, so seeing a drop-in solution deliver such significant reductions is a great result.

The fact that it drives major fuel savings so quickly makes it a no-brainer.”

Dan Ditri, Head of Energy & Carbon, Colas Rail UK

“The numbers from these trials make it clear: Sulnox Eco helps our locomotives burn fuel more effectively and run cleaner. It’s a no-disruption, high-impact solution that fits seamlessly into our operations.”

Paul Conway,
Head of Engineering and Compliance, Colas Rail UK



sulnox



Sulnox helps rail fleets and industry cut fuel costs and emissions right now - with no engine changes or capital expenditure.

Why Industries Are Adopting Sulnox Eco

Sulnox Eco Fuel Conditioner is an organic, drop-in solution for more complete combustion and improved engine function – applicable to all liquid hydrocarbon fuels.

- Fuel Savings: 5% average for marine + 8% average savings for land applications, >300% ROI in weeks.
- Lower Emissions: c.90% particulate reduction, plus lower CO₂, NO_x and SO_x.
- Protect Engines: c.17% added lubricity + decarbonisation benefits.
- Simple Application: Just add to existing fuel

How It Works - Four Mechanisms

1. **Emulsification:** Disperses free water into microscopic droplets within the fuel
2. **Secondary Atomisation:** Fragments larger fuel droplets through micro-explosions to increase surface area and deliver more complete combustion
3. **Detergency:** Cleans and decarbonises vital engine components for improved operation
4. **Lubricity:** Reduces friction dramatically to lower wear and maintenance costs



Real World Results Across Fleets

From trucks and trains to loaders and container ships, Sulnox Eco works with any liquid hydrocarbon fuel in any combustion engine.

8% Freight & Logistics

5% Marine

6% Construction & Mining Equipment

13% Generators

6% Rail (Locos, Tampers)

8% Coaches & Buses



Sulnox



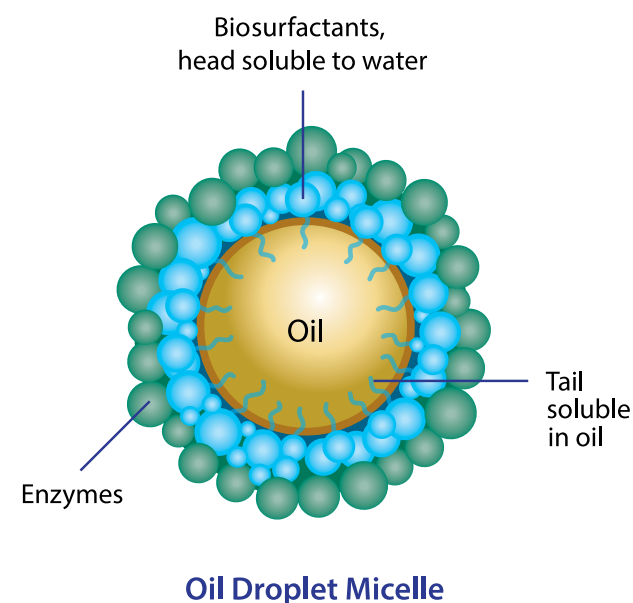
See the savings your fleet could make...
sulnoxgroup.com/savings-calculator/



“We are delighted with OSEI for its ease of use and successful applications as the main treatment of the everyday spills.”

Eoin Miller - OIC Services, Orkney Isles

Bioremediation Process



The most environmentally safe and cost effective treatment for oil spills and hazardous waste in the railway industry.

IMPRESSIVE reduction in clean up costs
PERMANENTLY eliminate hazardous waste problems
NO secondary clean-up required

Oil Spill Eater II (OSE II) is the world's most effective Hydrocarbon Bioremediation Product.

OSE II is an environmentally safe clean-up method because it uses nature's own bioremediation process to effectively eliminate hazardous materials. OSE II is not a bacteria (bug), fertilizer or dispersant product. It is a biological enzyme that converts the waste into a natural food source for the native bacteria found in the environment. The end result is only CO₂ and water. OSE II will reduce clean-up costs and permanently eliminate the hazardous waste problem with no secondary clean-up required.



Benefits of using Oil Spill Eater II (OSE II)

- A one stop contamination treatment with no secondary clean-up required
- Non-toxic and completely environmentally friendly and biodegradable
- Works with natural occurring bacteria at the site of contamination without introducing foreign bacteria to the environment
- Will not harm flora or fauna during use

Approved by

United States Environmental Protection Agency

And the only bioremediation solution approved by the

UK Marine Management Organisation



OSE II

“Very impressed with how easy Hosepatch is to use. Pinhole leak was spotted and repaired in less than 10 minutes saving us on costly downtime. Now Hosepatch is a must have on all of our diggers.”

General Manager Waste & Recycling Plant - QLD



Hosepatch is an instant repair system for hydraulic hoses that fixes a leaking hose in less than 10 minutes!

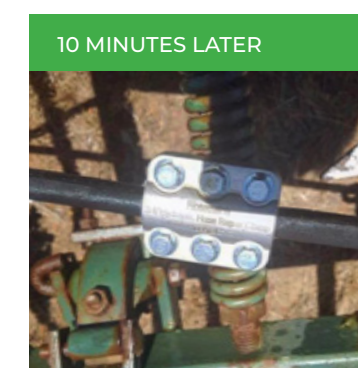
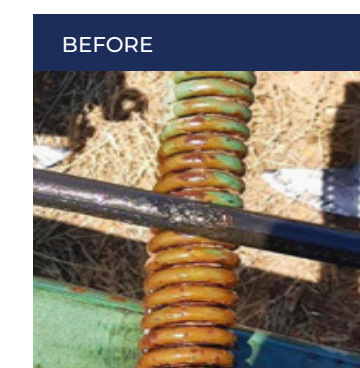


COMPLETELY seals a leaking hose, working either as a low pressure patch, or as a joiner
Enables work to continue **AVOIDING** costly downtime

HOSEPATCH HYDRAULIC HOSE REPAIR CLAMPS PERFORM WHEN YOU NEED THEM MOST!

Hosepatch in-field hydraulic hose clamps make repairs as simple as possible, with no removal of the hose from the machine. Cranes and heavy lifting equipment can be up and running in as little as 10 minutes. The clamps can be used on most types of hydraulic hose eliminating the need to have different fittings for different types of hose.

Emergency, Temporary & Reusable Hydraulic Hose Repair Kit



Using as a Patch

The clamp can be used as a patch for simple repairs. You place the clamps over the leakage in the hose, making sure the hole is placed centre of the clamp and then tighten the bolts. You're ready to go. Use as a patch has its limitations and best suits pressures under **2000 psi**, small holes, where the hose is in relatively good condition.

Using as a Joiner

Using the clamp as a joiner requires the use of the joining barb that comes in the kit, which means the hose has to be cut. The advantages of using as a joiner are that condition isn't important and can be used at pressures up to **6000 psi**.



HOSEPATCH clamp/joiner can be removed along with the damaged hose once correct new hydraulic hose is installed. It can then be returned to the kit ready for its next emergency repair job.

Hosepatch



“ We have never changed our oil and even more we have never had a trip due to a lubrication related issue thanks to Fluitec! ”

Mark Joy - Supervisor, Salt River Project



Scan the QR code to view the Salt River Project Case Study



Solving deposit issues and meeting sustainability targets - enhanced lubricant performance and elimination of mechanical issues due to varnish.

SUSTAINABLE treatments for industrial oils
RESTORE fluid life and **PREVENT** further deterioration
EXTENDS equipment life



DECON AW - Replenish Depleted anti-wear additives

- Prolongs the life of hydraulic fluids
- Significantly reduces the oil's varnish potential (as measured by MPC, UC, and Particle Counts)
- Minimises sludge, varnish, and other deposits from your system
- Dissolves varnish from machine internals
- Improves the deposit control performance of in-service hydraulic oils
- Extends the life of hydraulic fluids
- Reduces maintenance costs and downtime associated with frequent oil changes
- Minimises risky and costly flushes
- Reduces carbon emissions by cutting demand
- Improves the performance of servo-valves
- Increases the efficiency of heat exchangers
- Provides long-term protection against varnish, sludge, and deposits

DECON AO - Replenish depleted Antioxidants

- Superior seal compatibility compared to mineral oil (change of mass, change of volume, change of modulus, change of strength)
- Excellent oxidation stability and deposit control characteristics
- No adverse impact on the in-service oil's performance (i.e. air release, demulsibility, etc.)
- Rapid reduction of the oil's varnish potential as measured by MPC, UC and Particle Counts.



APPROVED BY OEM'S including Siemens Energy, MAN Everllence & SOLAR Turbines

Fluitem



“ Just one journey by train, rather than by car, can make a huge difference in helping protect the planet. ”

Martin Frobisher OBE -
Engineering and Safety Director, Network Rail



Water resistant grease solutions for crane wire ropes, as well as specific management of ‘MRO’ requirements in the rail sector.

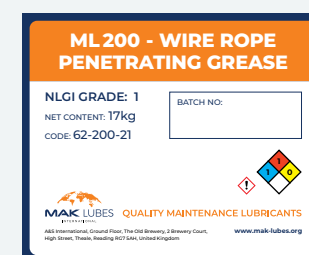
Includes **BIODEGRADABLE**, non-toxic grease*
Consistency **PREVENTS SLING-OFF** or dripping
EXTEND lube intervals and **REDUCE** lube consumption

ML253 ECOLOGY EAL WIRE ROPE GREASE

Specifically designed with BIODEGRADABLE, non-toxic natural and synthetic ester base oils and a special calcium thickener system to protect the environment. Meets all specifications required in Construction Equipment, Harbour Cranes and Syncrolift.

A tacky, stringy grease that offers excellent penetration and superior coating protection for wire ropes that are exposed to severe environments including salt water.

This proprietary technology provides a long lasting product with excellent water resistance, good E.P. properties and wear protection. The tacky adhesive NLGI Grade 1 grease will provide a water resistant coating around the wire rope protecting it from rust and corrosion. Will not drip, sling off or wash off wire ropes.



ML200 WIRE ROPE PENETRATING GREASE

Semi-fluid lubricant with excellent adhesion characteristics and water resistance.

Developed from a special blend base oil, additives and thickeners highly resistant to moisture. Ideal for the lubrication of wire ropes and chains that are exposed to severe conditions; its consistency allows fast penetration, protecting against wear, rust and corrosion.



ML221 WIRE ROPE COATING GREASE

Superior dual action lubricant, with excellent penetration and coating protection for wire ropes that are exposed to severe environments including water.

The proprietary technology provides a long lasting product with E.P. characteristics and water resistance. The tacky adhesive NLGI Grade 1 Grease provides a water resistant coating around wire ropes protecting against rust and corrosion. It will not drip, sling off or wash off wire ropes.

*Specific to ML253 Ecology EAL Wire Rope Grease

MakLubes



“The industry has shifted, with environmental and climate change topping the list of concerns.”

GMF



MC929 MAK FOX Multi Purpose Degreaser/Cleaner

A unique multi-purpose, non-flammable degreaser that does not contain any hazardous compounds such as hydroxide, phosphate or any hydrocarbons. MAK FOX leaves no residue, is completely biodegradable as well as water-dilutable to 1:100 mix ratio. An excellent product for the transition to industry 4.0 as totally safe for operators, the environment and all delicate surfaces and fabrics. It also has impressive wetting capabilities that make it suitable for tackling maintenance and performance challenges throughout the rail industry. The product has a gel form and can also be used as a detergent in cleaning machines, tunnel washers, hand sprayers and high-pressure cleaners.



MC828 MAK MOISTURE EXPEL Anti-Corrosion Protection

A professional aerosol product that effectively protects electrical & electronic components on all types of maintenance requirements in the rail industry. It provides protection against moisture, corrosion & humidity for a wide variety of cranes and lifting equipment, including electric motors, wiring, connectors, junction boxes, switches, tools & mechanical parts.

MakChem



Quality maintenance chemicals used throughout the rail sector, specifically designed to help protect equipment and personnel.



Safe for the environment **BIODEGRADABLE** products:
NON-TOXIC, SOLVENT FREE degreaser/cleaners
Solutions for waterproofing and **RUST PROTECTION**

MC919 MAK MAX - Heavy Duty Degreaser (NSF A1)

MAK MAX is a concentrated alkaline, aqueous cleaning agent that is used to degrease and clean metal products, surfaces, floors, garages, hangars and printers. It dissolves animal fats and breaks down their molecular binding. Excellent release of dirt from the surface of the material, protecting against corrosion. The unique detergent and molecular release compound acts very quickly and without disturbing the structure of the material. MAK MAX prevents the formation of greasy and oily deposits, breaking the bonds between dirt and grease molecules. The resulting substances are converted into a chemical emulsion which is completely removed by wiping or rinsing.



MC818 MAK SUPEREX - Multi-Purpose Solvent Degreaser

MAK SUPEREX is an excellent aerosol tool for workshops, crane repair and maintenance departments. Working as a multi-purpose solvent and cleaning agent, it leaves no residue after use and evaporates extremely quickly. MAK SUPEREX is effective on all metal parts as well as ceramics, greases, carbon and synthetic oils. Perfectly cleans rolling and plain bearings, carbon in carburetors, cleaning printing machines and electric motors. After application, the surface is clean and dry.



“10/10. To make any part of our job more efficient is a bonus. The Viper Mini certainly ticks all the boxes.”

Mike Roberts – Operations Manager – OM Heavy Lift



WIRE ROPE LUBRICATORS

Fast, effective, safe and the most environmentally responsible method for cleaning and lubrication of wire ropes

Increase wire rope life by up to **300%**

Reduce labour required to lubricate wire ropes by up to **90%**

Viper Wire Rope Lubricator

Viper is the #1 world leading product in wire rope lubrication, delivering significant benefits extensively to the heavy lifting industry, marine, mining, oil & gas, construction, bridges and anywhere that wire rope maintenance is critical.

The Viper WRL range of products provide fast and effective cleaning and lubricating in one simple process. There are three size options, enabling wire ropes from 6mm to 165mm in diameter to be greased at speeds up to 2,000 metres per hour.

Huge reductions in lube consumption, less pollution, significant extension in wire rope life and improved health and safety, employee wellbeing. Significant financial benefits.



Financial benefits of using the VIPER WRL

- Increases the life of wire rope assets by up to 300% versus manual lubrication methods
- Reduces re-lubrication times of wire ropes from several days to several hours compared to manual lubrication

Environmental/H&S benefits of Viper WRL

- All grease applied goes on the wire rope
- Does not leak grease, meaning no mess
- No wasted lubricant
- Lightweight allows for safe & efficient application
- No direct human contact with the lubricant
- Wire ropes can be lubricated from a safe distance

APPLICATIONS Mobile Cranes
Tower Cranes
Gantry Cranes
Winches



Viper WRL

We sell and distribute products for the railway sector that deliver performance improvement, bottom line financial benefits, AND WITH A MAJOR FOCUS ON SUSTAINABILITY.

How can we help you today?

Information about a specific product?



Hello@aands-international.com

Understand how we can help you towards your zero emissions target?



Angus@aands-international.com

Pricing?



Shaun@aands-international.com

Find out about delivery elsewhere in the world?



Jackie@aands-international.com

Place an order?



Aurelie@aands-international.com

Arrange a meeting



T: 0118 930 4321



A&S International



The Old Brewery
2 Brewery Court, High Street
Theale, RG7 5AH
United Kingdom

hello@aands-international.com
Phone: +44 (0)118 930 4321



Specialist Products for the Rail Sector : **Committed to Sustainability**