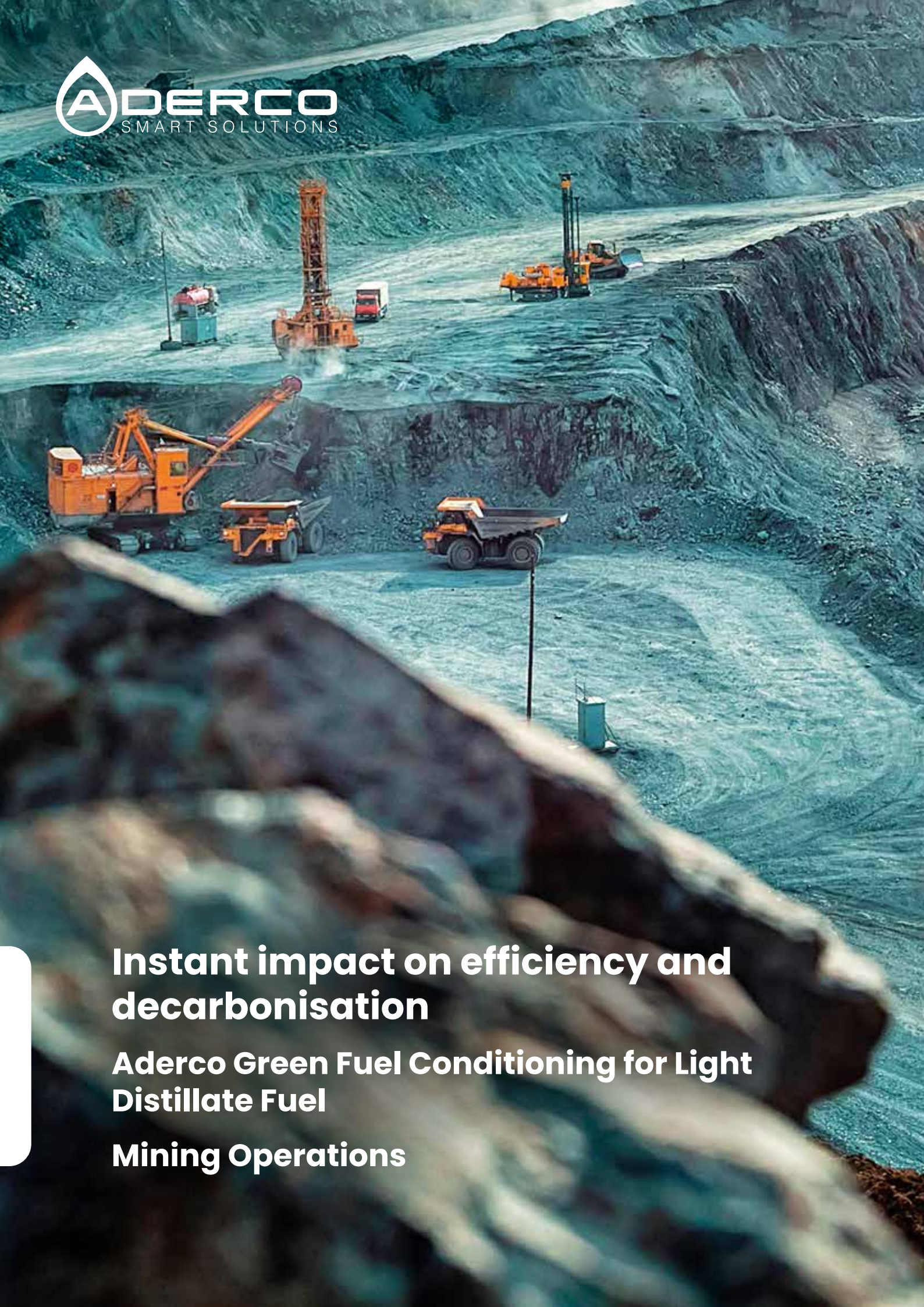
ADERCO
SMART SOLUTIONS



Instant impact on efficiency and decarbonisation

Aderco Green Fuel Conditioning for Light Distillate Fuel

Mining Operations

The proven solution to address today's mining environmental and operational challenges

As climate change requirements drive emission regulations and, as engine technology continues to evolve, engine intensive operations require more optimal performing fuels than ever before.

Optimising diesel, improving combustion and reducing carbon footprint is imperative in today's mining. **These can be achieved with a proven fuel conditioner and minimal distruption.**

Aderco's green technology enables mines to embark on their decarbonisation journey, all whilst saving in operational costs.

• With ADERCO, less fuel is required for the same energy output for existing operations, resulting in an immediate reduction in carbon and GHG emissions.

• With ADERCO, reliability is improved and maintenance schedules are predictable.

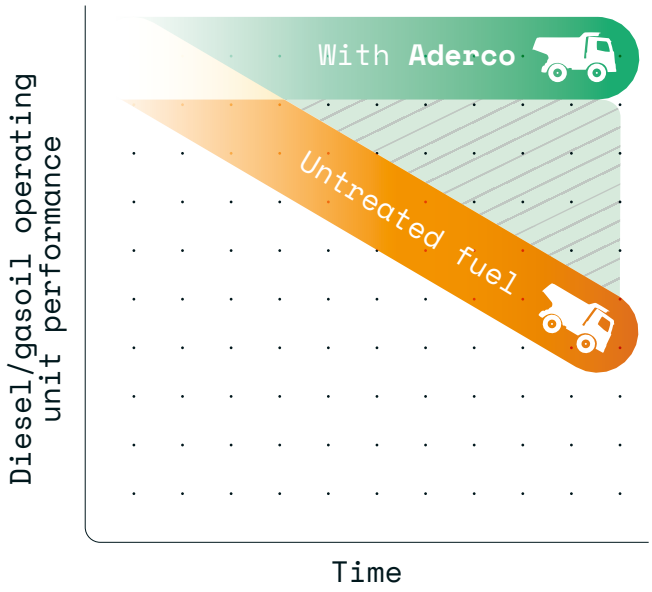
We know that every mine is unique, as is every fuel specification and origin. Each bring their own challenges, just as every location has its specific climate implications.

A fuel conditioner that contributes to mining business and environmental objectives

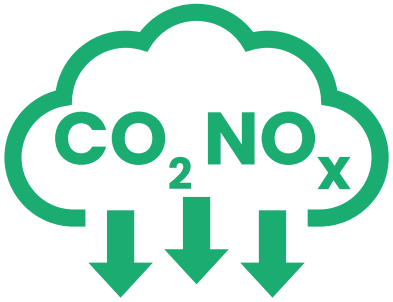
- ☑ **Invest in green technology** for green results
- ☑ **Reduce** direct scope-1 **emissions** (from operated assets)
- ☑ **Maximise energy output** while saving fuel
- ☑ **Improve operational excellence** through technology
- ☑ **Manage assets** with predictive maintenance
- ☑ **Manage capacity** more productively
- ☑ **Impactful decision making** and value generation

Rehabilitated and revegetated mine.

Benefits: OPEX savings, CAPEX protection and an instant impact in decarbonisation



Direct Decarbonisation Impact



- Diesel/gasoil economy ± **5%**(*)
- Diesel Exhaust Fluid (DEF) consumption is reduced **± 20%**(*)
- Other operational cost savings: fewer consumables, optimal performance maintained between overhauls.
- Reduces unscheduled downtime.
- Reduced capital expenditure through equipment protection (longer lifetime, less spare parts…)

- Reduction of overall carbon footprint
- Positive environmental and societal impact
- 1 litre of Aderco saves around **8.5** tonnes CO_2(**)
- Reduction in CO_2e taxes and access to green certificates (***)

(*) Depends on fuel characteristics, and as demonstrated on Industrial operations in West Africa, Europe, Canada, Australia, Indonesia and Brazil
(**) Theoretical calculation based on demonstrated savings, for 1 liter of Aderco fuel conditioner
(***) Specific to each country legislation, ask an Aderco representative for more information

Treating your distillates resolves complex issues

Modern distillate blends have a shorter shelf life, they are unstable and deteriorate rapidly.

The presence of unstable hydrocarbons found in modern blended distillates also negatively impact the combustion process.

The result is a an underperforming fuel, and when combined with a demanding environment and complex mining machinery, without a fuel treatment operations and productivity are both impaired.

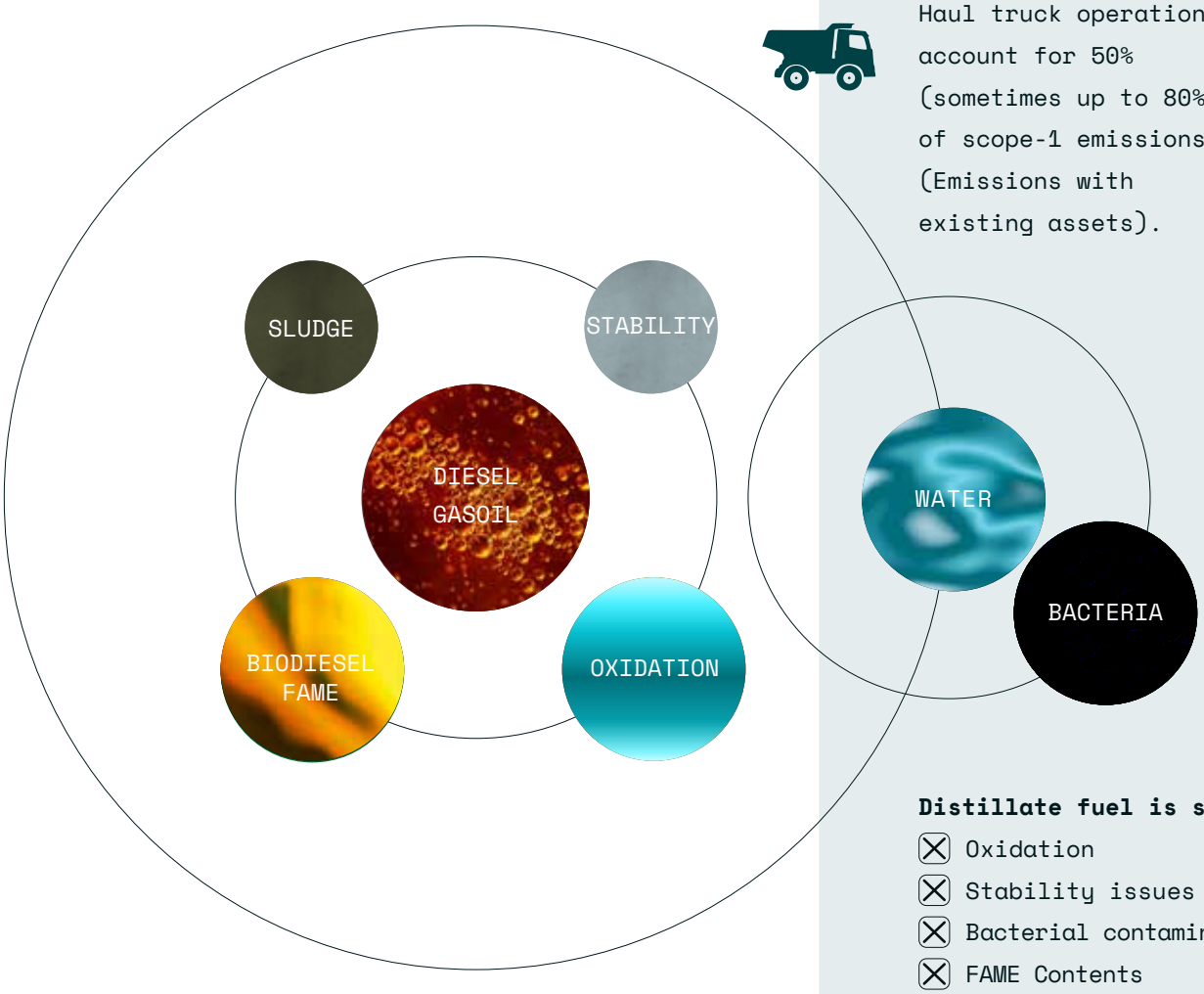
in days

Oxidation, temperature, water and other contaminants can cause fuel to be off-spec in just days.

80%

80% of diesel engine failures can be traced back to fuel issues.

Haul truck operations account for 50% (sometimes up to 80%) of scope-1 emissions (Emissions with existing assets).

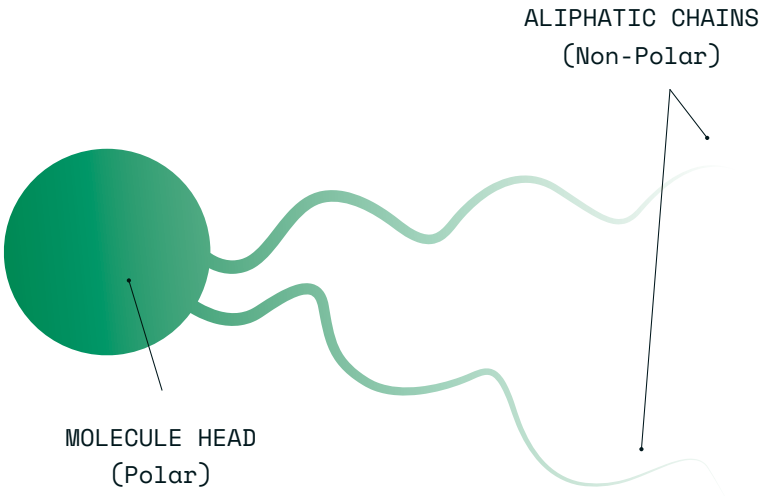


Distillate fuel is subject to:

- ☒ Oxidation
- ☒ Stability issues
- ☒ Bacterial contamination
- ☒ FAME Contents
- ☒ Low lubricity risk
- ☒ Water risk

Aderco Green Fuel Conditioning Technology and Application

Aderco provides a unique combination of Technology and Application expertise; our fuel conditioning solutions deliver optimum results in terms of **Efficiency**, **Economy** and the **Environment**.



At the core of Aderco's technology is a 100% vegetal organic molecule deriving from renewable source. It's powerful surfactant properties neutralise instabilities in fuels to deliver performance without compromising fuel specifications.
Aderco's research and development team are at the forefront of resolving current fuel issues. Meeting today's requirements whilst preparing for tomorrow's challenges.

Link to Aderco Inland Operations Video

With over 40 year of working closely with our customers. Aderco has built a strong technical knowledge in engine fuel operations. Our experience, our customised applications and ongoing support insure a **unique customer experience, resulting in trust and loyalty.**

The Aderco molecule protects your mining assets before, during and after combustion

Before Combustion

- Fuel conditioning means stability
- Fuel tanks and lines remain clean
- Water emulsion is broken down; allowing drainage without commingled fuel
- Protects against bacterial contamination
- Filters perform better and last longer, allowing maximum flow rates

During Combustion

- Optimum atomisation
- Cleaner and complete combustion
- Fuel economy is improved
- Diesel Exhaust Fluid (DEF) consumption is reduced
- Injection system components perform better and last longer
- Carbon build-up is reduced
- Idle running is optimised
- Overall smoother engine operation

After Combustion

- Reduces Mining Scope-1 emissions (with existing assets)
- Overall exhaust temperature is reduced, minimising engine stress and noxious gas emissions
- Particulate matter (PM) emissions reduced, improving smoke opacity and reducing DPF workload
- Cleaner turbocharger

Managing your fuel performance starts in the tank

Aderco V35 Fuel Conditioner and Lubricity improver

Engineered for Modern Light Distillate Fuels

V35
FUEL CONDITIONER
AND LUBRICITY IMPROVER

- 100% vegetal-organic, ashless, solvent-free and metal-free
- Physical action only (fuel specifications not compromised)
- Classified as Non-Dangerous / Non-Hazardous
- No transport restrictions
- High flash point: ≥ 140°C
- Compatible with gasoil/diesel, gasoline, kerosene, biofuel, residuals
- No risk to engines
- REACH Compliant, BV Attested, DNV Statement of Fact,
- EPA Registered
- Highest concentration

Dosage instructions:

INITIAL dosage: 2 litres per 20,000 litres of fuel

SUBSEQUENT dosage : 1 litre per 20,000 litres of fuel

- Direct dosing at fuel farm/storage
- Self Dispersing
- Low cost per litre of fuel treated
- Convenient recyclable 20-litres pails

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