



**CYPHER
ENVIRONMENTAL**

DUST CONTROL
SOIL STABILIZATION

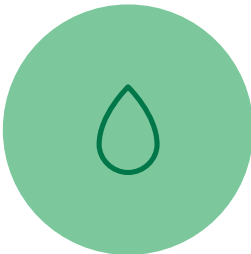


UNSTABLE — & — DUSTY ROADS?

SUPERIOR ROAD MANAGEMENT

Superior Dust Control

Superior Soil Stabilization



CONSERVES
WATER & FUEL



ENVIRONMENTALLY FRIENDLY,
NON-TOXIC & NON-CORROSIVE



ELEVATES CORPORATE
SOCIAL RESPONSIBILITY

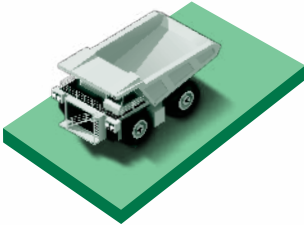
WHY CHOOSE CYPHER ENVIRONMENTAL?

Cypher Environmental provides superior dust control and soil stabilization solutions specifically engineered for a range of material inputs and road conditions found worldwide. As an industry pioneer, we set ourselves apart by providing products that are not only designed to reduce your environmental footprint, but simultaneously help reduce long-term operating costs. Beyond the positive impacts our products have on the environment, we have a robust philosophy on giving back to the communities where we work by engaging with philanthropic endeavours like our Corporate Social Responsibility (CSR) initiative, Cypher Green Roads. With Cypher by your side, you will enhance project safety, reduce your environmental impact, and improve your bottom line.

12+%

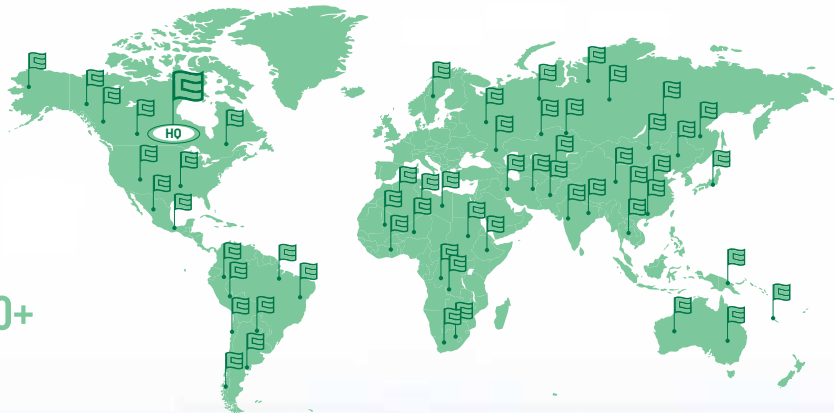
COST REDUCTION OF BUILDING ROADS

AS REPORTED BY: Eng-Tech



GLOBAL SOLUTIONS

COUNTRIES: 40+
MINING OPERATIONS: 30+
MUNICIPAL OPERATIONS: 100+



ROAD//STABILIZR[®]

Superior Soil Stabilization



UP TO 8.8% GAIN IN DENSITY



61%

REDUCTION IN ROLLING RESISTANCE

AS REPORTED BY: Syncrude Canada

300+%

CALIFORNIA BEARING RATIO (CBR) MEASURE OF ROAD MATERIAL STRENGTH

AS REPORTED BY: Geoconsult, S.A.

63%

REDUCTION IN SWELL POTENTIAL

AS REPORTED BY: EPMMOP - Quito, Ecuador

DUST/BLOKR[®]

Superior Dust Control

90+%

REDUCTION IN AIRBORNE DUST GENERATED FROM THE ROADS

100%

LESS CORROSIVE THAN ROAD SALTS



COMPLIES WITH BOEING BSS7432 CONFORMITY

Cypher's products comply with Boeing BSS7432 Conformity, therefore are non-corrosive to airplanes and any other vehicles or equipment using treated runways or roads.



DUST/BLOKR®

Superior Dust Control

DUST/BLOKR®'s primary use is to provide an environmentally friendly alternative for dust control on roads and unpaved surfaces of almost any kind. Additionally, the DUST/BLOKR® line of products offers an excellent solution for dust and erosion control of stockpiles of a variety of materials. Unlike many alternatives, DUST/BLOKR® contains no chlorides, hydrocarbons or toxic by-products, so it is neither corrosive to vehicles, toxic to roadside vegetation, nor harmful to use around water bodies or environmentally sensitive areas.



VERSATILITY

DUST/BLOKR® is a revolutionary solution designed to be a cost comparable, yet environmentally friendly and non-corrosive alternative to road salts and hydrocarbon-based dust suppressants. Arguably the most widely used products in the world for dust control, magnesium chloride and calcium chloride (road salts) are low in cost, but very harmful to the environment due to their highly corrosive properties. Beyond being cost-competitive, DUST/BLOKR® yields longer-lasting results, better performance in wet weather, and enhanced engineering properties of the roads it is applied to. Applied using standard equipment and techniques, the product can easily be adopted by any customers who have used a water truck for dust control applications in the past.



DUST/BLOKR®/SB is Safer Choice certified by the U.S. Environmental Protection Agency. Products with this label help consumers and commercial buyers identify products with safer ingredients, without sacrificing quality or performance. It also means that every ingredient in the product has been carefully evaluated by EPA scientists for both safety and performance.



VERSATILE
NON-TOXIC
NON-CORROSIVE
USED GLOBALLY

85+%
WATER AND FUEL SAVINGS



SIGNIFICANT SAVINGS

DUST/BLOKR® derives its efficacy in a different manner than chloride-based dust suppressants, which are hygroscopic and absorb moisture, keeping the road surface damp and therefore minimizing dust. DUST/BLOKR® is a proprietary blend of sugars, starches and minerals, which when combined together offer adhesive power to bind the road's running surface together to eliminate the dust. Therefore the product lasts longer in dry weather, but also has none of the negative side effects, such as slipperiness in the rain.

DUST/BLOKR® is shipped in a highly concentrated form and mixed with several parts water prior to application, creating a solution that is cost-effective enough to ship globally.

Safety is critical on all roads, whether industrial or municipal. Testing on roads treated with DUST/BLOKR® has shown positive results on both brake tests and skid resistance tests, with the ability to provide better traction after the product has been applied.



ROAD//STABILIZR[®] 'S CONCENTRATION IS UNRIVALED IN THE MARKET. 1 LITER TREATS 33 CUBIC METERS OF COMPACTED SOIL MATERIAL, THEREFORE SHIPPING COSTS ARE NEGLIGIBLE, EVEN TO THE MOST REMOTE LOCATIONS. THE PRODUCT IS ALSO APPLIED WITH STANDARD ROAD MAINTENANCE EQUIPMENT, MAKING EASY ADOPTION ANOTHER HIGHLY ATTRACTIVE QUALITY

THE DETAILS

ROAD//STABILIZR[®] is a long-term soil stabilizer that is designed to increase the stability of high clay content materials; ROAD//STABILIZR[®] is used to strengthen the treated material by increasing its density after compaction. As a result of the increased density, treated materials exhibit excellent improvements in CBR values (California Bearing Ratio) and reduced swelling potential, and therefore become a more durable road surface during wet and dry weather.

LONG TERM

STRONGER

SAFER

LOW COST

STRONG CLAY-BASED MATERIAL

ROAD//STABILIZR[®] is not a glue - it acts on the clay component already in the road materials. Comprised of a combination of organic catalysts, electrolytes and surfactants, it works by releasing water from the soil, enabling it to be compacted to a denser form. It then manipulates the clay to bind it together permanently, increasing its strength and density.

By using the in-situ clay-based material, significant cost savings are also achieved by cutting back on expensive and more traditional stabilization materials, such as aggregates or cement. The effect on the clay is long-term; it does not wash away in the rain and provides lasting stabilization for several years.

In fact, highly travelled ROAD//STABILIZR[®] roads maintain the high densities that are achieved after compaction through the action of the traffic, which helps yield the long term stabilization results. Therefore ROAD//STABILIZR[®] provides a perfect solution for high traffic haul roads, secondary roads and municipal roads.

VERSATILITY

The product is not only applicable to the running surface or base of unpaved roads, but can be used in the base, sub-base or sub-grade of both paved and unpaved roads alike, should the correct clay content exist.

Due to the added density and stability after the ROAD//STABILIZR[®] stabilization, the treated material will exhibit less swell and movement, resulting in more stability for the layers above, and can therefore provide longer lasting pavement life.

A paper has been published in the Canadian Geotechnical Journal, specifically referencing ROAD//STABILIZR[®]'s ability to reduce capillary rise, and showcasing its ability to effectively aid in the building of better sub-base and sub-grade materials.

Through a single application of ROAD//STABILIZR[®], significant cost savings result through the use of cheaper road building materials, long-term reductions in maintenance costs and vastly reduced rolling resistance. When applied to a wearing course, reductions in dust are also a pleasant side-effect.



300+%

CALIFORNIA BEARING RATIO (CBR)

MEASURE OF ROAD

MATERIAL STRENGTH

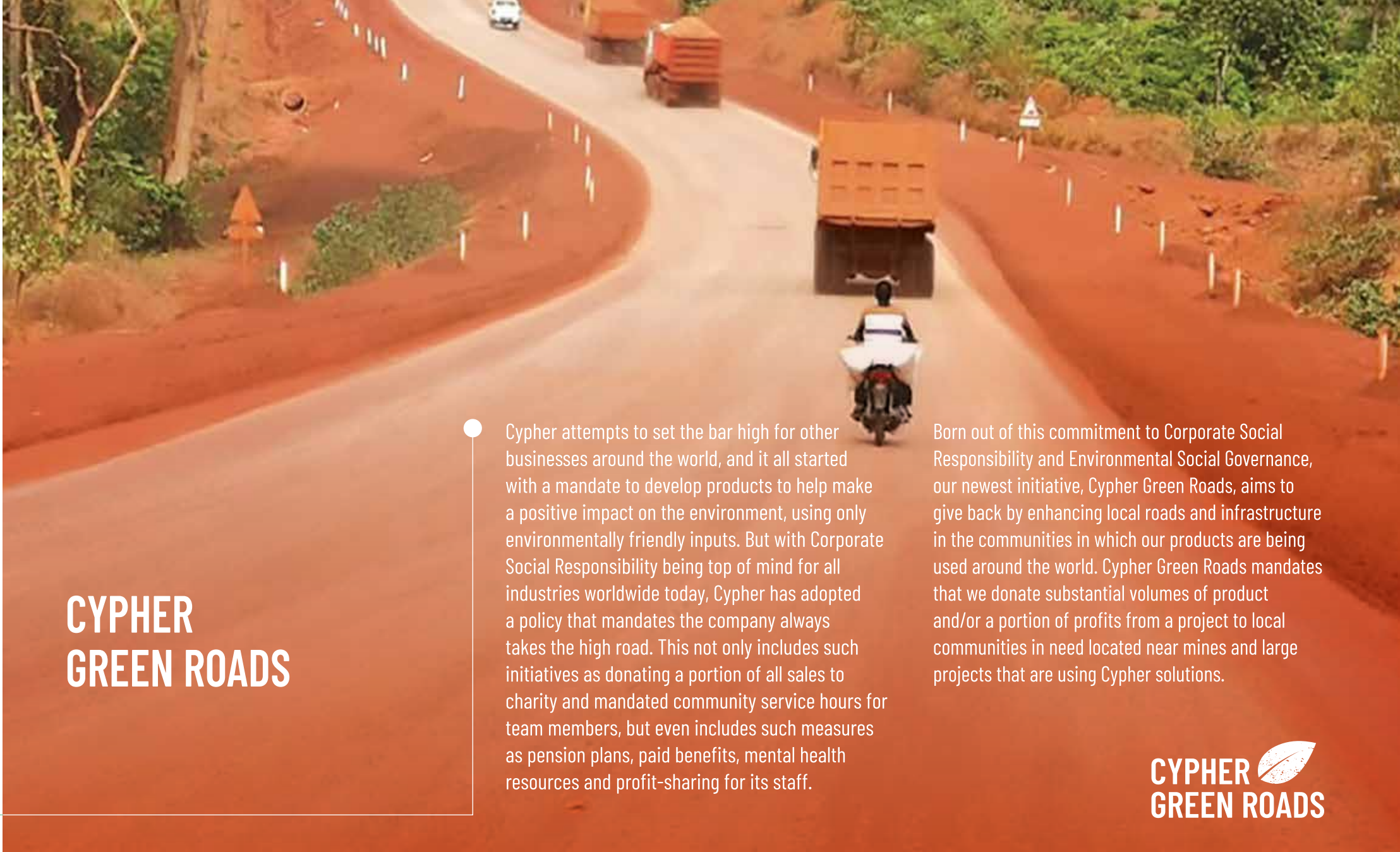
AS REPORTED BY: Geoconsult S.A.

ENSURING QUALITY RESULTS

CYPHER IS CAREFUL TO ENSURE ITS PRODUCTS ARE USED SAFELY. ALL DISTRIBUTORS ARE GIVEN A FULL PROGRAM OF TRAINING ON THE PRODUCTS, AND THE COMPANY THEN TAKES A PROACTIVE ROLE IN ENSURING THE PRODUCTS ARE SUITABLE FOR THE INTENDED APPLICATION.

“WE DO A SIGNIFICANT AMOUNT OF DUE DILIGENCE ON OUR CUSTOMERS. I KNOW THAT MIGHT SOUND KIND OF STRANGE, BUT WE NEED TO BE SURE THEY UNDERSTAND HOW THE SOLUTIONS SHOULD BE APPLIED IN ORDER TO YIELD THE BEST RESULTS POSSIBLE.”

- CYPHER'S PRESIDENT, TODD BURNS.



CYPHER GREEN ROADS

Cypher attempts to set the bar high for other businesses around the world, and it all started with a mandate to develop products to help make a positive impact on the environment, using only environmentally friendly inputs. But with Corporate Social Responsibility being top of mind for all industries worldwide today, Cypher has adopted a policy that mandates the company always takes the high road. This not only includes such initiatives as donating a portion of all sales to charity and mandated community service hours for team members, but even includes such measures as pension plans, paid benefits, mental health resources and profit-sharing for its staff.

Born out of this commitment to Corporate Social Responsibility and Environmental Social Governance, our newest initiative, Cypher Green Roads, aims to give back by enhancing local roads and infrastructure in the communities in which our products are being used around the world. Cypher Green Roads mandates that we donate substantial volumes of product and/or a portion of profits from a project to local communities in need located near mines and large projects that are using Cypher solutions.



“Always do what’s right.”

Notes:



BETTER ROADS. BOTTOM LINE. PLANET.



**CYPHER
ENVIRONMENTAL**

**DUST CONTROL
SOIL STABILIZATION**

1149 St. Matthews Ave. 2nd Floor
Winnipeg MB, Canada R3G 0J8
T: +1 (204) 489-1214
E: info@cypherenvironmental.com
www.CypherEnvironmental.com

 @CypherEnv
 @cypherenvironmental
 @CypherEnvironmental
 @cypher-environmental-ltd

"Always do what's right."