

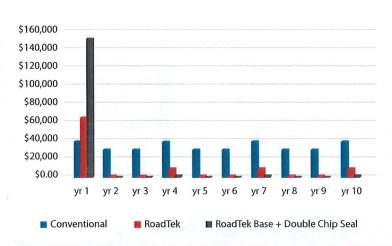
When the Budget Meets the Road

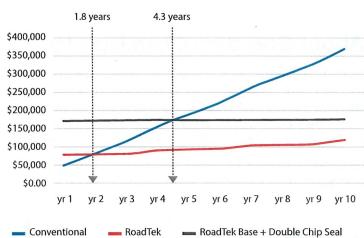
The dilemma of the rural road manager is straightforward: Repair or minimize recurring drivability and safety problems with fixes that don't last. These solutions leave drivers and residents dissatisfied and harm the environment as well as vehicles and equipment.

Relying on chlorides and other materials that add no compressive strength and dissolve in wet weather, maintenance teams trade low cost-per-application for high, long-term costs and shortened road life.

RoadTek by Guardian Chemicals changes the equation. RoadTek is a single solution for a range of problems that is safe for vehicles, equipment, and the environment. RoadTek solves road maintenance and usability problems for up to 10 years while lowering costs, year after year.

RoadTek - A long-term solution that makes financial sense





Annual costs

Breakeven Analysis

Smart maintenance with RoadTek increases safety, assures community satisfaction, and reduces long-term costs.













Extended lifespan

Protection of asset value

Meets the needs of residents and businesses

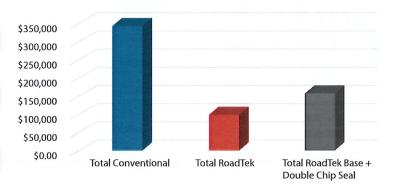
Environmentally safe

Non-damaging to vehicles and equipment

Lowers long-term maintenance and replacement costs

Benefits: RoadTek vs. Chlorides	RoadTek	CaCl2
Simple to use	Υ	Υ
Controls dust	Υ	Υ
Water resistant	Υ	N
Prevents rutting and potholes	Υ	N
Prepares road for paving / chip-sealing	Υ	N
Increases load-bearing capacity	Υ	N
Decreases need to re-grade	Υ	Υ
Non-corrosive to vehicles and equipment	Υ	N
Maintains drivability in wet and freezing	Υ	N
Non-toxic to flora and fauna	Υ	N
Extends lifetime of road	Υ	N
5+ year application interval	Υ	N
Reduces long-term maintenance costs	Υ	N
Enables re-use of aggregate and milling materials	Υ	N

RoadTek versus Conventional Over 10 Years



A RoadTek-treated road

- Resists surface deformation season after season
- Suppresses dust formation
- Reduces long-term maintenance and support costs
- Uses materials cheaper than gravel for repairs
- Adds load-bearing capacity to accommodate heavy equipment
- Prepares an aggregate road for use as a durable sealed subsurface for asphalt or chip seal

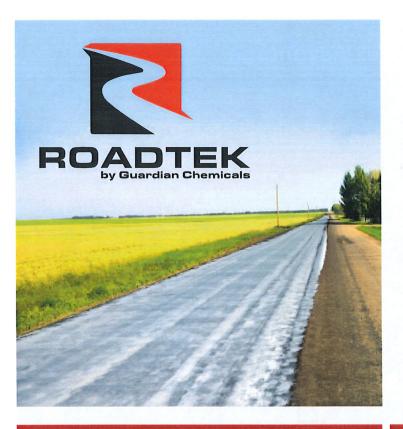
About Guardian Chemicals Inc.

Guardian Chemicals is a privately owned company with fully integrated R&D and manufacturing facilities in Alberta, Canada. Guardian develops, manufactures, and delivers innovative products designed for challenging environments. We have dedicated ourselves to creating products that meet and exceed our customers' performance expectations cost-effectively and with care for the environment.









RoadTek: To preserve the safety and lifespan of rural roads

Rural roads unite our counties, providing us access to our homes and workplaces. As unpaved roads experience more vehicle and equipment traffic, they need constant maintenance to preserve safe driving conditions. This is expensive and time consuming for local governments and businesses.

RoadTek is a liquid road stabilization and dust suppressant that maintains the safety and longevity of unpaved roads. RoadTek binds the aggregate materials of the road with strong physical bonds, increasing its mechanical strength and load-bearing capacity.

RoadTek maintains the stability of the road season after season. By making the aggregate and gravel resistant to moisture, RoadTek extends the life of the road, even with heavy usage, for up to 10 years.

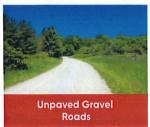
A Proven and Cost-Effective Solution

- Preserve road drivability when wet and through multiple freeze/thaw cycles
- Counters wash boarding, rutting, and pothole formation
- Suppresses dust formation
- Reduces re-gravel costs and frequency of re-grading
- Enables the re-use of aggregate, milling materials, and ditch-recovered gravel
- Transforms a gravel surface into a stable sub-surface suitable for asphalt paving

Safe for People, Vehicles, and the Environment

- RoadTek has been thoroughly tested for impacts to road-adjacent plants and marine life and found to be environmentally safe.
- Unlike salt and traditional dust suppressors, RoadTek is non-corrosive for vehicles and equipment.
- RoadTek reduces costs whiles assuring the highest levels of community acceptance and driver satisfaction
- Roadtek is a water-based product that does not contain chlorides, alkyl or nonylphenol ethoxylates (APE/NPEs), or materials listed on the CEPA (Canadian Environmental Protection Act) toxics list.

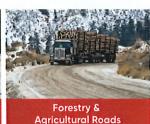
RoadTek at Work







Stabilization





The RoadTek Advantage

Road managers face persistent and recurring challenges. Freeze/thaw cycles and wet weather can quickly transform a good road into a minefield of ruts and potholes. Warm weather brings ever-increasing dust generation. Heavy usage shortens the lifetime of the road.

Working with limited budgets, asset managers and maintenance crews have relied on chlorides and other stabilizers to manage these problems. The problem is traditional treatments don't remain effective and introduce additional costs, including environmental harm and equipment damage from corrosion.

When the budget meets the road, chloride options trade off low cost-per-application for high long-term maintenance and replacement expenses.

RoadTek is a single, cost-effective, long-term solution to these problems. RoadTek gives a road the ability to withstand use by heavy equipment, extends its life through weather extremes, and can prepare the road for asphalt paving. And RoadTek lowers long-term costs.

Choose RoadTek for Maximum Road Life with Minimal Maintenance



RoadTek-treated road after 7 months of exposure to use and weather

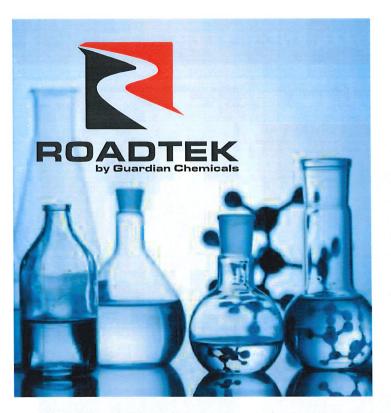
About Guardian Chemicals Inc.

Guardian Chemicals is a privately owned company with fully integrated R&D and manufacturing facilities in Alberta, Canada. Guardian develops, manufactures, and delivers innovative products designed for challenging environments. We have dedicated ourselves to creating products that meet and exceed our customers' performance expectations cost-effectively and with care for the environment.

Guardian provides products and custom formulations to a wide range of primary and secondary industries throughout Canada, the USA, and worldwide.







Our Environmental Commitment

Guardian Chemicals regards environmental stewardship to be a core responsibility. We have always taken a proactive approach to develop products that pose minimal environmental risk. We support this commitment to the environment with our certification to ISO 14,001 (Environmental Management System).

In keeping with this responsibility, the materials utilized in the formation of RoadTek have been specifically selected from 100% virgin material. RoadTek does not contain waste byproducts from the manufacturer of paint. In some cases, these materials may contain substances deemed harmful to the environment. As a result, Guardian determined that it would not be environmentally responsible to use them in RoadTek.

Roadtek is a polymeric water-based product that does not contain chlorides, alkyl or nonylphenol ethoxylates (APE/NPEs), or materials listed on the CEPA (Canadian Environmental Protection Act) toxics list.

RoadTek - Safe for People and Environment

Environment

Guardian Chemicals regards environmental stewardship to be a core responsibility. We have always taken a proactive approach to develop products that pose minimal environmental risk. We support this commitment to the environment with our certification to ISO 14001 (Environmental Management System).

Guardian Chemicals Inc. has completed the necessary product development and formal registration process required for Green Seal™ certification on our E Series (2009) products. Our objective is to provide our customers with an environmentally responsible option that meets standards set by Green Seal™.

Health & Safety

Guardian Chemicals holds that there is nothing more important than the safety of our customers and staff. It is because of this belief that we have been successfully certificated In OHSAS 18001, an international standard designed for Health & Safety Management Systems. Combining OHSAS 18001, ISO 9001 (Manufacturing) and ISO 14001 (Environment) ensures that we are providing the safest, most effective and environmentally conscious products in the industry.

Guardian Chemicals has also received an Alberta COR (Certificate of Recognition) for our health and safety programs, specifically those that assist in injury reduction.

Smart maintenance with RoadTek increases safety, assures community satisfaction, and reduces long-term costs.













Extended lifespan

Protection of asset value

Meets the needs of residents and businesses

Environmentally

Non-damaging to vehicles and equipment

Lowers long-term maintenance and replacement costs

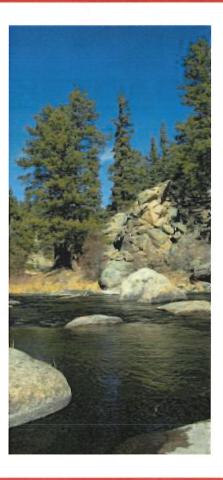
AQUATIC TOXICITY DATA AND RESULTS

Rainbow Trout Bioassay Mortality and Stressed Behaviour Information (96-hour LC50 for ROADTEK)

Concentration (ppm)	Mean Number of Fish at End of Test		Mean Rate of Fish at End of Test	
	Dead	Stressed	Dead	Stressed
0	0	0	0	0
31.25	0	0	0	0
62.5	0	0	0	0
125	0	0	0	0
250	0	0	0	0
500	0	0	0	0

Daphnia Magna Bioassay Mortality and Immobility Information (48-hour LC50 for ROADTEK)

Concentration (ppm)	Mean Number of Daphnids at End of Test		Mean Rate of Daphnids at End of Test	
	Dead	Immobile	Dead	Immobile
0	0	0	0	0
31.25	0	0	0	0
62.5	О	0	0	0
125	0	0	0	0
250	0	0	0	0



About Guardian Chemicals Inc.

Guardian Chemicals is a privately owned company with fully integrated R&D and manufacturing facilities in Alberta, Canada. Guardian develops, manufactures, and delivers innovative products designed for challenging environments. We have dedicated ourselves to creating products that meet and exceed our customers' performance expectations cost-effectively and with care for the environment.

Guardian provides products and custom formulations to a wide range of primary and secondary industries throughout Canada, the USA, and worldwide.



