



A Sustainable Guide To Industrial Products

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For most of our lives we have been watching the slow but persistent trickle of news broadcasts that tell the story of how humans are affecting the planet. CFC's punching holes in the ozone, acid rain melting the edifices of our world, declining ice sheets overloading the planet's water cycle. The list goes on.

This slow but steady feed tells us that we need to do something, but for many of us there have always been ecological issues to fix. When the conversation is about where we'll be at the end of the century, it feels like a long way off and a slow process to get there.

But we cannot wait, the planet cannot wait.

Reversing, or even deviating, the course that we are on requires nothing short of a concerted global effort and the commercial world has a key part to play.

When we make better products, we improve the sustainability of everyone that buys them. When we create ways of working that protect resources and the environment, we reduce the impact of everyone we work with.

NCH is proud of the sustainable changes we have made and the improvements we are continuing to make. The companies we work with benefit from our approach, and we benefit when other companies improve their processes. Together, every incremental change we make is amplified across our markets and audiences.

Together, we can make the world better for everyone today, this century and beyond.

A handwritten signature in white ink that reads 'Peter Crossen'.

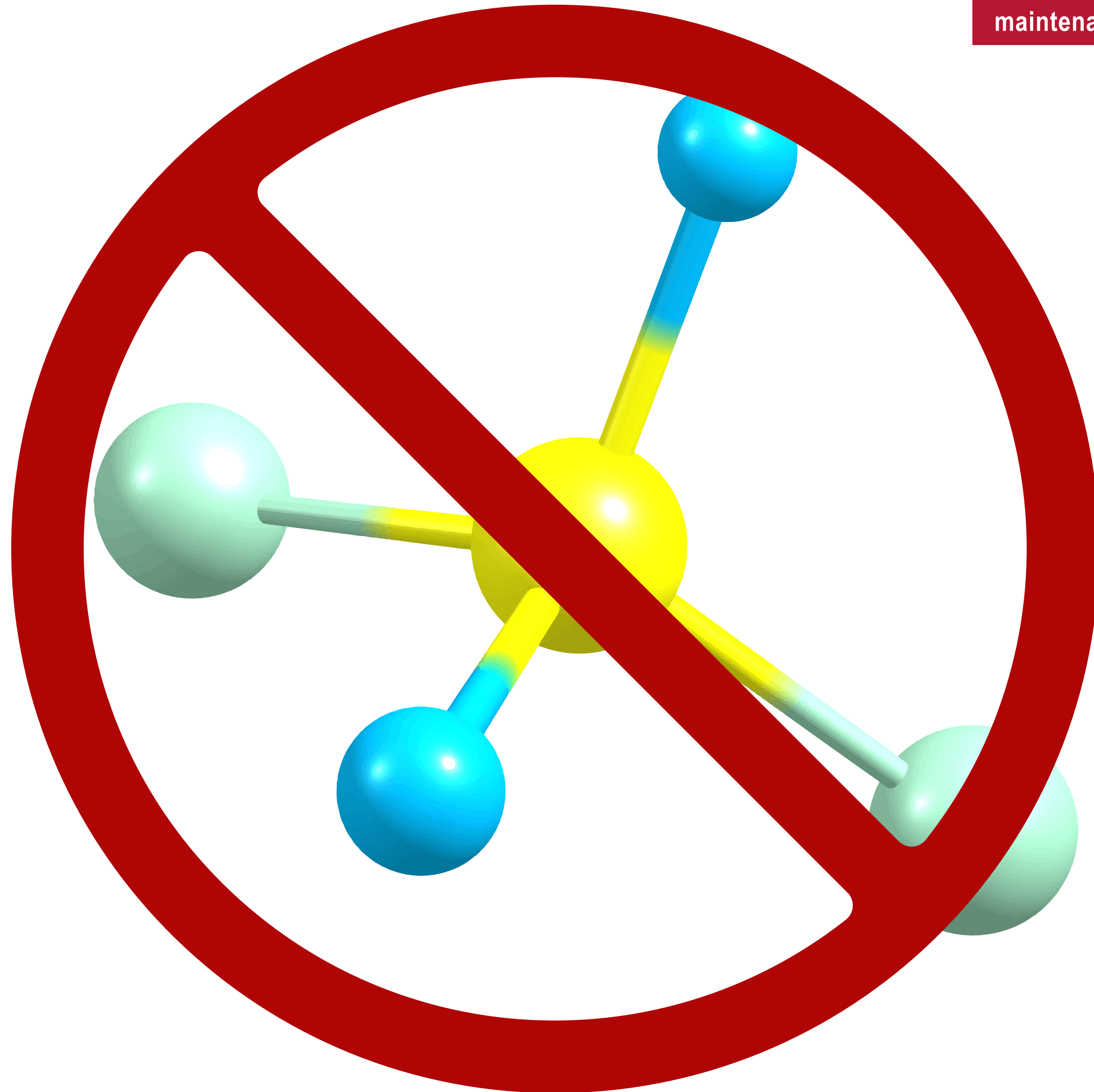
Peter Crossen
Head of EU Marketing, NCH Europe



**Here are some examples
of the efforts we have made to
improve the planet we live on**

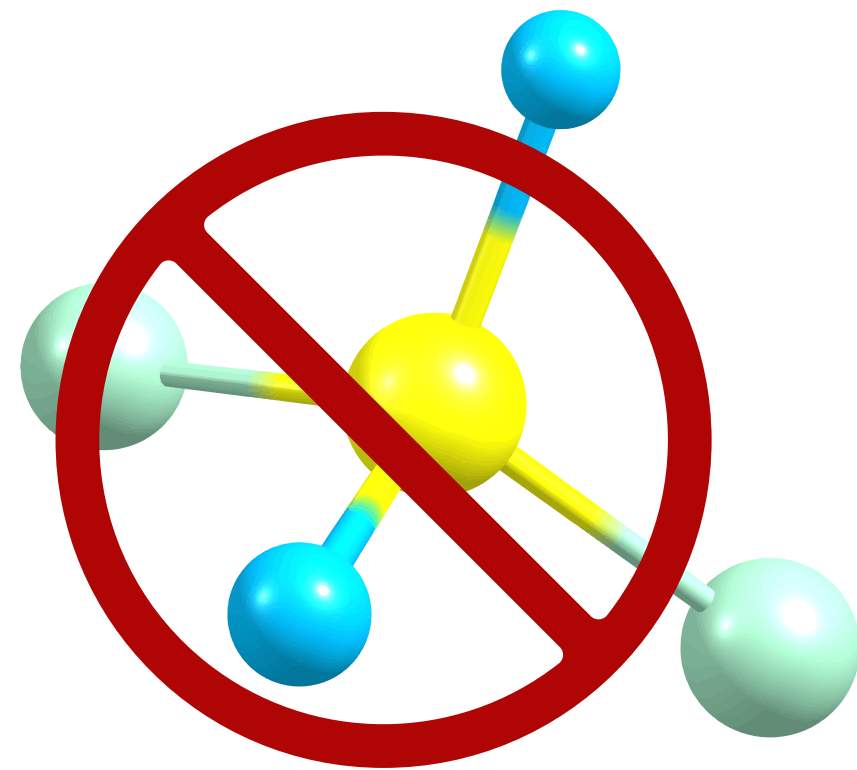


Paint Removers



Dichloromethane (DCM)

Exposure by inhalation of this chemical has been shown to be harmful to the central nervous systems and following extensive test data it has been classified as a suspected carcinogen.



Dichloromethane (DCM)

One of the most common solvents used in paint stripping products has been DCM. It's volatility and potency mean that, even with short term (acute) inhalation, the health risks can be serious. DCM can also be absorbed into the body through contact with the skin.

NCH

maintenance



Chemstrip Advanced

While some markets still allow DCM under licence, the EU has banned its use in paint strippers. Since then, our team of chemists have continually improved our paint-stripping formulations to DCM comparable levels to ensure that no matter the market, there is a sustainable alternative available. The newly developed Chemstrip Advance is DCM free.

Using Chemstrip Advance will minimise health risks for workers stripping paint from a variety of surfaces.



Before



After



Rust Removal



Strong Acids

Not only are acids corrosive, but they may also create toxic by-products when reacting with metals and other materials.

These by-products can cause serious injury and damage.

Strong Acids



Strong Acids, traditionally used in rust removal processes, have a high acute toxic effect on all forms of life. Improperly disposed of it can cause material and ecological damage, contaminate groundwater and in gaseous form it becomes a contaminant causing acid rain and photochemical smog.



X-Rust 7

Our PH neutral formulation of X-Rust 7 does three things that improve industrial rust removal:

- Corrosive free protection of workers, materials and the environment.
- Remove the factors that cause flash rusting.
- Penetrating crevices and hard to reach areas through the use of dip tanks enables many parts to be derusted with reduced chemical use within your facility.

Extend the life of your parts with a neutral solution that doesn't damage the planet.

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Before



After

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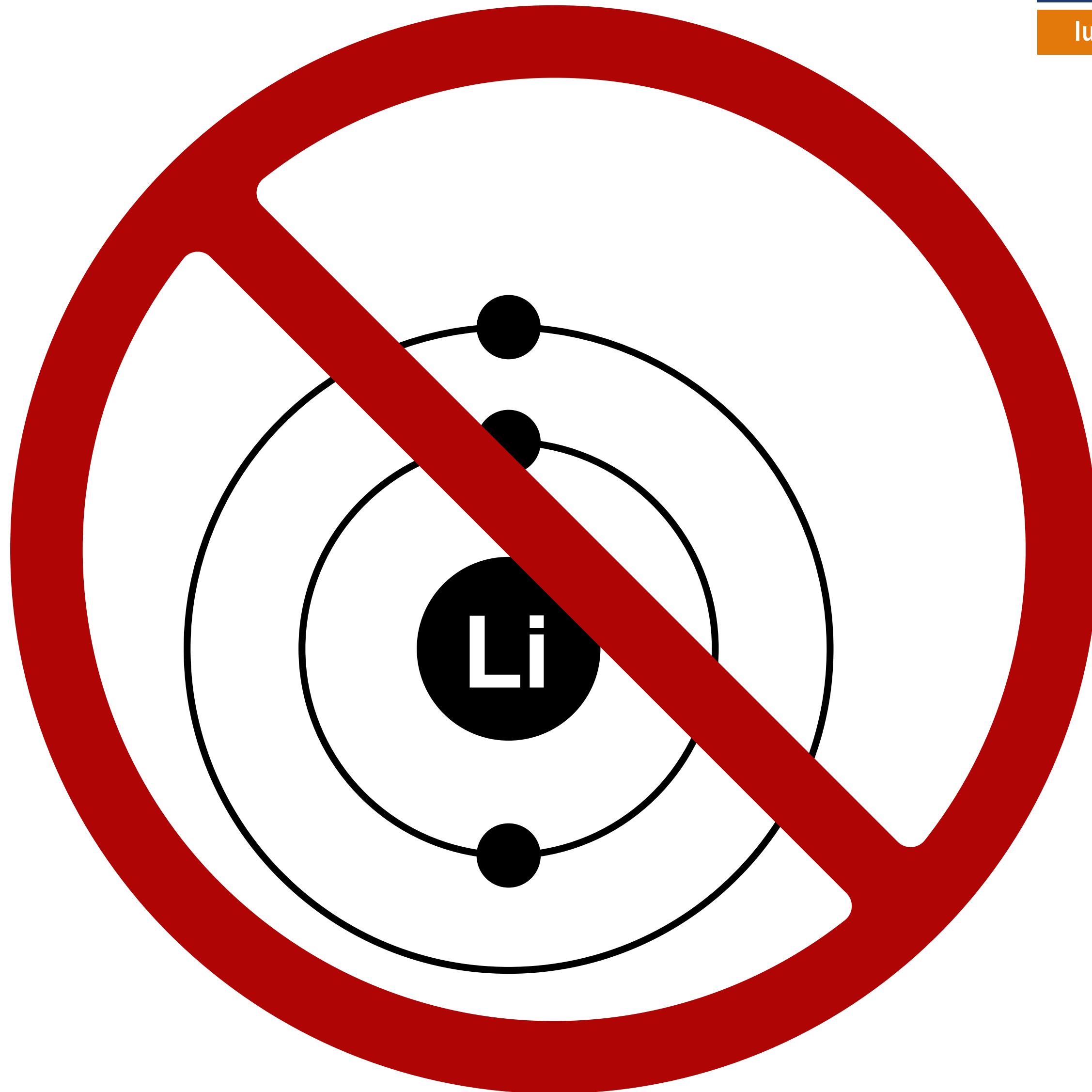


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lubricants

Lubrication

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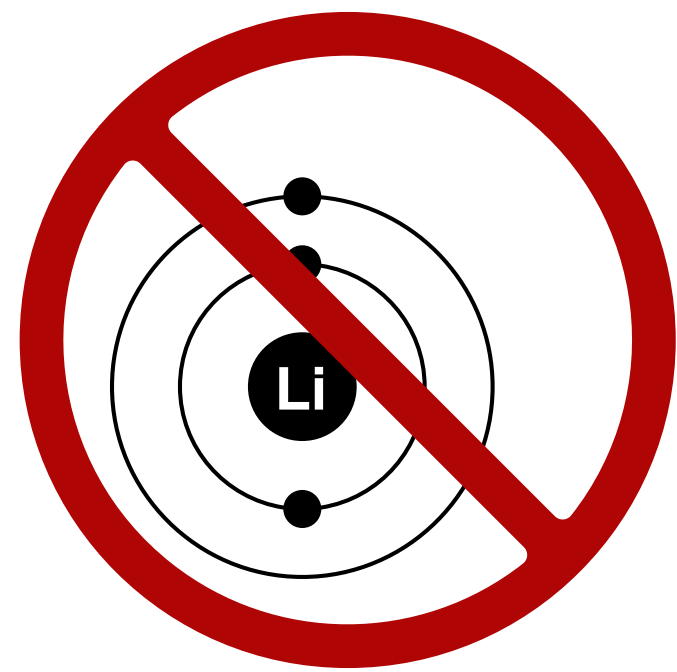


Lithium

80% of the world's greases are lithium based and a third of the world's lithium comes from South American salt flats and is ecologically intensive to extract.

While lithium may be considered safe for landfills, its extraction for recycling is often even more expensive than mining.

Lithium



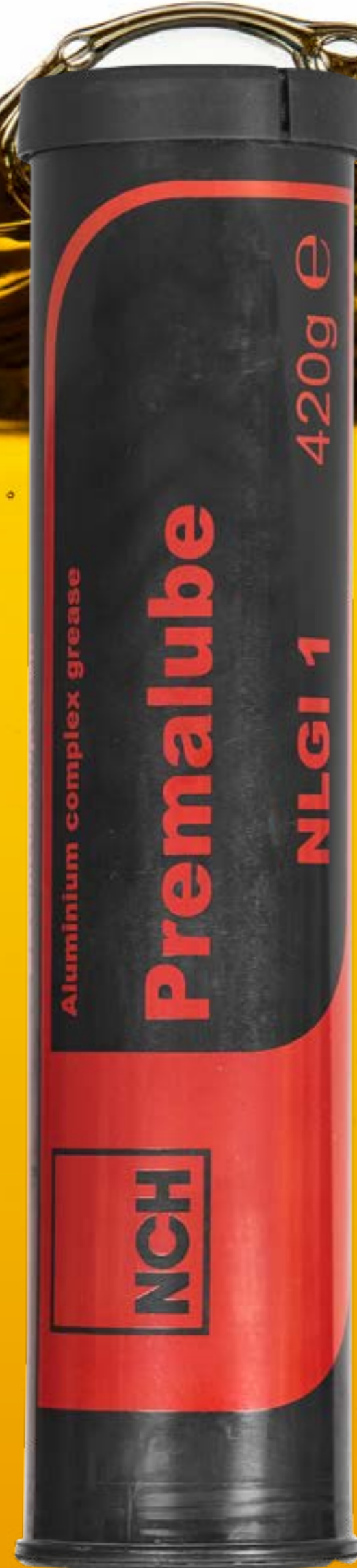
A form of lithium, lithium hydroxide is traditionally used to make lithium soap and complex greases. These represent the majority of greases on the market. It acts as a thickening agent to house the oil component of a lubricant but is still malleable enough to let the oil out under pressure, while providing a seal from water contamination.

Sustainability is not always where products go after use, but where their resources come from. Lithium will only ever get more difficult to extract and more expensive to buy.

The logo for NCH Lubricants, featuring the letters "NCH" in white on a blue square background.

NCH

lubricants



Premalube

Formulated with alternative soaps, NCH greases offer stronger structural performance, improved water resistance and oxidation protection. Along with these properties, our greases also outperform lithium greases for temperature, corrosion protection, and extreme pressure performance.

Protecting your machines and parts for longer, without an unacceptable environmental cost.



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Wastewater Treatment

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Corrosive Acids

Traditionally used in drain cleaners, these acids pose health risks for workers, damage risks for pipework and environmental hazards for human life and beyond.

Corrosive Acids



When acids encounter a wastewater blockage, they may break it down, clearing the existing blockage, but they don't necessarily deal with the blockage materials. Materials that remain within the system potentially cause further blockages requiring further treatments.

NCH

wastewater

FreeFlow

Acid cleaners work as an artillery shot, blowing holes in blockages, but it takes an army to keep wastewater systems clear and safe. Bacteriological solutions, that are 100% biological and genetically unmodified, can be the army that keeps your system flowing by dismantling blockages entirely.

Utilised with a BioAmp system, FreeFlow creates more than 30 trillion friendly bacteria per dose at a concentration 275 times greater than any other leading biological product.

No harsh chemicals, just a natural solution that outperforms any of the alternatives.





Parts Degreasing

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Solvents

Many solvents used in traditional degreasers and cleaners biodegrade over a long time period. Sometimes this degradation creates greater, more persistent, toxicity, that threatens organic life.

Solvents



Traditional manual part washing units sit a sink on top of a drum of solvent cleaning solution and greasy parts are cleaned with a brush. Modern technology has moved on to utilise high-performance water-based detergents combined with machinery that applies heat and pressure.

Solvent based products are high in Volatile Organic Compounds (VOCs). An aqueous system removes all, or most, VOCs creating numerous health and safety benefits, facilitating businesses meeting VOC reduction targets and bringing significant productivity savings through reduced cleaning frequency.

The logo consists of the letters 'NCH' in a bold, white, sans-serif font, centered within a blue square.

parts cleaning

Storm 1

Storm, our advanced water-based detergent, combined with a Torrent machine, creates substantial improvement in results and processing time. Elsewhere, our chemistry team continues to refine our formulations so that an effective, longer service-life solution is available.

Optimal cleaning and degreasing with a safer, more environmentally friendly option.



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parts cleaning



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NCH

CHEMAQUA

Water Treatment

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Water Mismanagement

The foundation of life on our planet, water is one of our most essential resources. The way that we manage water resources goes a long way to protecting it and ensuring sustainability.



Water Mismanagement



Traditionally, water treatment products are liquids that mostly comprise water. They often come in large 210 Litre drums or 1,000 Litre IBCs, weighing up to 1,500kg. To maintain the formulation and prevent precipitation in a liquid mixture, caustic soda is commonly added just to stabilize the formula. Each of these processes have side-effects that add to the carbon footprint of a liquid treatment.



NCH

CHEM-AQUA

HandiPak® & HandiBloc®

Solid water treatment using HandiPak® products from Chem-Aqua bypass precious water usage. Once water is removed from the product, it's removed from the bulk transportation and manufacture of that product, reducing pollution. The concentrated HandiPak® solid alternative weighs a lot less without any dip in performance.

They can be sent direct to the customer, removing the need for costly delivery of heavy drums and reducing manual handling at the same time. The onsite dissolving system with local water rehydrates the product to treat customer's water systems.

Effective water treatment that is resource efficient and keeps your water systems safe.



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NCH employs dozens of chemists across the organisation whose expertise is used to do everything from developing new products and better formulations, to ensuring legislation is considered and respected in every jurisdiction.

Our in-house team of chemists also create secondary benefits that put our products ahead of the competition. We create products that touch on every part of your facility, across multiple platforms.

The teams that create these different products are not in competition with each other, they thrive by collaborating with each other.

For example, the team that works on our lubricants also work with the parts cleaning team to ensure that machines and detergents we develop can be performance optimised based on the development of lubricants that periodically need cleaning from parts.

Sharing knowledge between teams leads to the creation of products greater than those that could be created by a single, siloed team.

When you partner with NCH, we share that approach and expertise with you. Our chemists become your chemists. Our sustainable improvements become your sustainable improvements.



Contact Us to Find Out How

www.ncheurope.com