

**Polymer Specialties** 

## Investing in your future

Global specialty chemicals leader in safety, supply reliability, sustainability and innovation

Nouryon

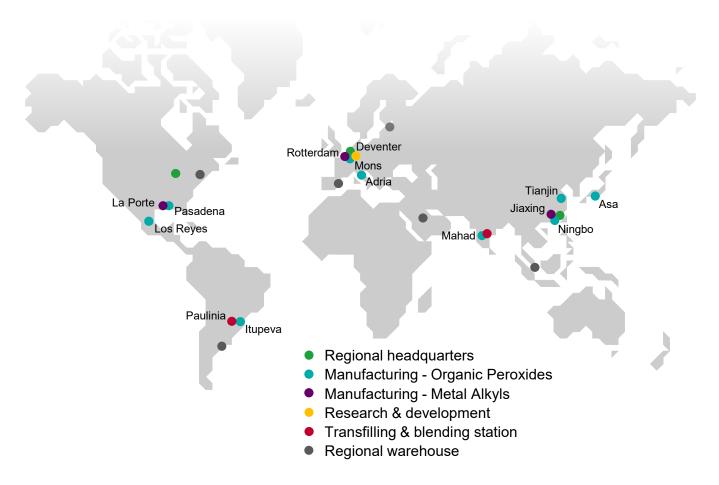
# Essential ingredients enabling the polymer cycle

Building on a sustainability driven strategy



## Our sites

Our talented team, together with global manufacturing and distribution network, allow us to deliver our polymer products to our customers anywhere in the world, ensuring security of supply and access to quality products.





# Expanding our global manufacturing footprint

We are committed to continue investing in optimization of operational footprint, upgrade technologies, increase production volumes and improve supply to better serve our customers and meet the growing needs of the market place.





#### Investments across the globe:

### Metal alkyls and complex metalorganics North America

#### La Porte, Texas

 Continued site-wide investments to increase operational capacities. Several capacity expansions across product lines, including TEAL, TIBAL, TNOAL, TNHAL, MAGALA® BEM, TMAL and aluminoxanes

#### **Europe**

#### Rotterdam, The Netherlands

• Increased production capacity of TEAL to further generate growth, improve safety and environmental performance

#### Deventer, The Netherlands

 Investing to increasing complex metalorganics capability and capacity

#### Asia

#### Jiaxing, China

Expanding TEAL capacity and adding transfilling & blending capability

Nouryon is the world's leading producer of organic peroxides, metal alkyls and organometallic specialties for the thermoplastic, composite and rubber industries.



### Organic peroxides North America

#### Pasadena, Texas

- Site-wide improvement and debottlenecking program to increase capacity
- Introduced the Butanox range, a dimethyl phthalate (DMP)-based methyl ethyl ketone peroxide (MEKP) portfolio for the curing of thermoset resins and coatings
- Added a worldclass warehouse for the storage of cold peroxides

#### Los Reyes, Mexico

- Significant increased capacity for cold peroxides used in PVC and polyolefin production
- Introduced organic peroxide emulsions to the North American market, becoming the first producer to offer these formulations to the US PVC industry

#### **South America**

#### Itupeva, Brazil

- New MEKP and paste facilities to expand the global footprint and become a leading producer of curing systems in South America
- Investing in introduction of Trigonox® 187 for CID

#### Europe

#### Mons, Belgium

• Site-wide improvement and debottlenecking program to increase capacity

#### Asia

#### Ningbo, China

- Increased DCP capacity up to 38 thousand tons
- New state-of-the-art hydroperoxide facility
- New process technology implemented to increase the eco-efficiency of Trigonox® 101

#### Tianjin, China

- New €90 million state-of-the-art production site to support polymer industry growth in China
- Capability to produce Trigonox® 187 for CiD

#### Mahad, India

• Increased capacity by 80 percent for growing market demand in India and Middle East

## Safety, sustainability, and innovation

We partner with our customers, suppliers and employees to deliver innovative solutions, drive progress and create a safe and sustainable today and tomorrow for everyone.

Our 'Commitment to a Sustainable Future,' is based on three pillars:



Our effort to IMPROVE our environmental performance includes ambitious targets:

Safety ambition: zero injuries, waste, and harm	
2025	
25% carbon emission reduction <sup>6</sup>	<b>70%</b> low carbon energy <sup>7</sup>
2030	
Carbon Neutral	10% reduction of water usage and waste generation 8
2050	
Net Zero carbon emissions	

 $<sup>^{\</sup>rm 6}$  Including carbon emissions from our operations (scope 1) and purchased energy use (scope 2)

<sup>&</sup>lt;sup>7</sup> Based on the portion from low carbon sources (biomass, renewable, and nuclear) compared with fossil-based sources as reported by our global manufacturing sites

<sup>8</sup> Intensity measured on a per tons product basis

<sup>&</sup>lt;sup>9</sup> Reflects the percentage of innovation that is focused on sustainability



We deliver innovative and sustainable solutions that answer society's needs - today and in the future.

#### **Safety**

We are committed to sharing our expertise with our customers, distributors, and suppliers.

- Our company is recognized as a global leader in the safe production and use of organic peroxides and metal alkyls.
- We share our experiences and safety knowledge with all of our stakeholders.
- We offer onsite and online training on the safe handling of organic peroxides and metal alkyls.

#### **Innovation**

Nouryon is recognized around the world for its role in pioneering innovation within the polymer industry. We believe that breakthrough solutions require collaboration across the value chain and we continue to forge resilient partnerships for sustainable innovation.

#### Our innovative product portfolio is well-structured for growth and resiliency

#### CiD

Continuous Initiator Dosing which enhances PVC reactor output by 20-40 percent while reducing energy costs and lowering CO<sub>2</sub> emissions.

#### Trigonox® 501

is our new product engineered for better performance in polypropylene visbreaking.

#### **Nouryact®**

is a cobalt-free accelerators range, providing a sustainable alternative to cobalt-based accelerators which are subject to ECHA reclassification in due course. It also enables easy production of biofiber-based composites.

#### Perkadox® GB-50

is a DCHP-free go-to curing agent for road markings, flooring, elastomeric roof coatings, adhesives, chemical anchors, and other composites.

#### Organic peroxide emulsions

a safer alternative to solvent-based peroxide for making PVC, introduced to the US for the first time.

### Work with us

Our success has been built on long-lasting and productive partnerships. We find that working collaboratively with a wide range of stakeholders, such as customers, partner companies, universities and startups is helping us become more sustainable, more innovative, and deliver more value to our customers. We devote ourselves to understanding our partners' needs. We believe that by working together in an open and honest way we can develop solutions that help both parties grow. Our reliability and dedication to the polymer industry make us a company our partners can count on.



#### **Americas**

Citadel Center
131 S Dearborn St, Suite 1000
Chicago, IL 60603-5566
T +1 800 828 7929 (US only)
E polymer.amer@nouryon.com

#### Europe, Middle East, India & Africa

Zutphenseweg 10
7418 AJ Deventer
The Netherlands
E polymer.emeia@nouryon.com

#### Asia Pacific

Room 2501 & 26F, Building, Caohejing Center No. 1520 Gumei Road, Xuhui District Shanghai 200233 P.R. China

E polymer.apac@nouryon.com

MAGALA, Perkadox and Trigonox are registered trademarks of Nouryon Functional Chemicals B.V. or affiliates in one or more territories.

All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Nouryon, however, makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nouryon does not accept any liability whatsoever arising out of the use of or reliance on this information, or out of the use or the performance of the product. Nothing contained herein shall be construed as granting or extending any license under any patent. Customer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes. The information contained herein supersedes all previously issued information on the subject matter covered. The customer may forward, distribute, and/or photocopy this document only if unaltered and complete, including all of its headers and footers, and should refrain from any unauthorized use. Don't copy this document to a website.