Discover OXO Segment
We are a part of Grupa Azoty
Grupa Azoty’s main facilities

Grupa Azoty ZAK S.A.

Grupa Azoty Zakłady Chemiczne „POLICE” S.A.

Grupa Azoty ATPolymers GmbH

Grupa Azoty Zakłady Azotowe „PUŁAWY” S.A.

Grupa Azoty Kopalnie i Zakłady Chemiczne Siarki „SIARKPOL” S.A.

Grupa Azoty S.A.
Grupa Azoty „KOLTAR” sp. z o.o.
Grupa Azoty Polskie Konsorcjum Chemiczne sp. z o.o.
Grupa Azoty S.A.
at a glance

- One of major European chemical producer
- No 1 in fertilizers, polyamide, OXO products, melamine, titanium white in Poland
- No 2 in mineral fertilizers in the EU
- Growth in scale through M&A activity
- Balanced geographical presence
- Stable financial position
- Experienced management team
- Listed on Warsaw Stock Exchange since 2008
- Continued presence in the Respect Index
- Presence in the MSCI Indices

2017 financial results, 1€ = 4.2717 PLN
Grupa Azoty core business (revenue)

52% Fertilizers
- AN, CAN, NPK, AS, ASN, RSM, urea, amonia

15% Plastics
- Polyamid Caprolactam

29% Chemicals
- OXO alcohols, plasticizers, aldehydes, melamine, urea technical grade, pigments

2% Energy
- Electricity and heat

2% Others
- Laboratory services, catalysts, others
Grupa Azoty ZAK S.A. - 70 years of tradition, experience and an established position on the market. The Company’s products are geared towards the following sectors of the economy: agriculture, the construction industry, chemical processing, and the plastics industry.
Grupa Azoty ZAK S.A. core business (revenue)

- **48%** Fertilizers
  - AN, CAN, UAN, urea, other

- **46%** OXO Segment
  - Plasticizers, OXO alcohols, aldehydes

- **6%** Others
  - Laboratory services, others
OXO Segment share in Grupy Azoty S.A. revenue: 8.8%

OXO Segment share in Grupy Azoty ZAK S.A. revenue: 46%
Discover OXO Segment

Discover the technology of tomorrow based on years of experience. Meet our OXO products. Choose trusted solution.
OXO Segment
Product portfolio

Plasticizers
Oxoviflex®
- PVC additive (for polymer flexibility)
- coatings, rubber products, glues, sealants

Aldehydes
n-Butyraldehyde
Isobutyraldehyde

Oxo Alcohols
2-Ethylhexanol
n-Butanol
Isobutanol
Octyl alcohol F
- Plasticizers
- Solvents
- Acrylates
- Acetates
- Fuel additives

MAIN APPLICATIONS
- Construction
- Automotive
- Shoe production
- Wire & cable
- Packaging
- Medical devices

INDUSTRY
- Plasticizers
- Paints and varnishes
- Glues
- Fuels
OXO products applications

Thanks to our products everyday goods are flexible and user friendly. **Guess how frequently you use them? The amount of industries they are used in is vast!**
**OXO Segment**

**Mission**
To deliver chemical products meeting customers needs.

**Vision**
We will become leading player in our industry. Our company will be a first choice supplier for the customer. We will achieve a highest value addend factor in our industry regardless of economic situation.

**Strategic aim**
Growth of sales and margins through market development, expanding port folio and product placement.

**Activities**
To introduce new generation plasticizers. To lengthen value chains. To perfect customer services employing innovative logistics solutions. To utilize new perspective market segments and markets. To optimize production and storage costs.
Plasticizers

Capacities

Oxoviflex®

H2 2018

50 kT/year

Additional capacity

15 kT/year

Total 65 kT/year

Tons of plasticizers produced since 1954

ZAK QUALITY

Plasticizers since 1954

Oxo Alcohols since 1936

Oxoplast.com

TOTAL 2,3 min tons
OXO alcohols

Capacities

Tons of OXO alcohols produced since 1986

TOTAL 225 kT/year

2-Ethylhexanol
170 kT/year

n-Butanol
Isobutanol
Octyl alcohol F
55 kT/year

TOTAL 4,515 mln tons
OXO Segment
Production process

- Propylene → Aldehydes
  - Synthesis gas → Water Gas Shift
  - CH₄ + O₂ → H₂ → PTA

- Hydrogen → Aldehydes
- Aldehydes → OXO Alcohols Plant
  - n-Butyraldehyde
  - Isobutyraldehyde
  - 2-Ethylhexanol
  - n-Butanol
  - Isobutanol
  - Octyl alcohol F

- Hydrogen → OXO alcohols
  - Hydrogen

- Plasticizers Facility
  - Oxoviflex®
Market share in European Union

**Plasticizers**

- Our experience in plasticizers dates back to **1954**
- We utilize two separate plants
- We are the largest European producer of DEHT/DOTP plasticizer - Oxoviflex®
- Yet we invest in future - specialty esters, and other OXO derivatives

**OXO Alcohols**

- We’ve been producing OXO alcohols since **1986**
- Our plant was modernised in 1998 and is one of the most modern in Europe
- Apart from OXO alcohols we supply their precursors i.e. n-butyraldehyde & isobutyraldehyde
- We serve customers globally
Oxoviflex®
THE NON-PHTHALATE PLASTICIZER

Growing requirements and higher quality standards of plastics industry are the backbone of OXO Segment development. Thanks to our non-phthalate plasticizer Oxoviflex®, everyday goods are flexible and user friendly.

Oxoviflex® is innovative, non-ortho-phthalate PVC plasticizer which can be used also in food contact applications and child toys.

- Ecological profile = not classified
- No legal restrictions and limitations
- Safety
- REACH status - registered
OUR FUTURE

Specialty Esters Project (SEP)

SEP is a key development activity. The core part will be a new plant dedicated to innovative, specialty non-phthalate plasticizers including polyesters and bio-polyesters. The production plant will be accompanied by semi-industrial unit designed for developing and producing batches of new plasticizer types. They will be tested at Application Laboratory and at PVC converters production facilities.
OUR FUTURE

Research and Development Centre

Running advanced R&D works to develop new methods of manufacturing specialty plasticizers will be among the first tasks to be completed by the Research and Development Centre. These plasticizers will pose unique parameters and will be used not only as PVC plasticizers, but also as additives in other polymers and plastics.
For more visit Oxoplast.com!
Read our blog and subscribe to our OXO newsletter
Thank you for attention