

PRODUCTION SITES OF INCOPA MEMBERS



incopa

A sector group of Cefic
European Chemical Industry Council - Cefic aisbl

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INCOPA is the European **inorganic coagulants producers association**. INCOPA's members manufacture inorganic coagulants (aluminium and iron salts), which are essential elements for water treatment, paper manufacturing, fertilizer production and other industries.



31
PRODUCERS



80
PRODUCTION SITES
IN EUROPE



4
MILLION TONNES
OF COAGULANTS
PRODUCED PER YEAR



>85%
OF THE EUROPEAN
COAGULANT
PRODUCTION CAPACITY

INCOPA members apply chemistry at its best, contributing to the circular economy and enabling safe and affordable water for all.

OUR INDUSTRY CREATES VALUES

CIRCULARITY

Our products, as well as their applications, **contribute to the Circular Economy**: thanks to the use of inorganic coagulants 1/3 of the phosphorus used in Europe could be recycled.

RELIABILITY

Inorganic coagulants are **pivotal for safe drinking water and efficient wastewater purification**. They are **produced in Europe**, thus ensuring a **reliable local supply**.

COST EFFICIENCY

Chemical water treatment is the **most cost efficient** and **state of the art** technology. Coagulant use represents **only 0.5% of the total cost of water purification** (0.5€ on 100€, per person per year).

RESOURCE EFFICIENCY

Chemical water treatment is the **most energy efficient water treatment technology** and has a **low carbon footprint**.



SAFETY

Coagulants are essential for **protecting human health and improving environmental performance**. INCOPA members are committed to the **highest product quality and environmental standards** in Europe.

OUR KEY NUMBERS

 **1**
BILLION
EUR

The industry contributes **1 billion EUR** to the European economy.

 **71%**
OF THE GLOBAL
POPULATION

In 2015, **71% of the global population** (5.2 billion people) used a **safely managed drinking water service**.*

 **4**
billion
PEOPLE

We estimate around **4 billion people** have access to drinking water treated with coagulants.

 **70%**
OF OUR
RAW MATERIALS

70% of our raw materials are high quality by-products from other industries.

HOW COAGULANTS ARE MADE



Inorganic coagulants support the separation of dissolved and particulate impurities from the water.

The raw materials are based on **abundant natural resources (aluminium and iron) and high-quality by-products**.

APPLICATIONS



Coagulants are widely used to **purify drinking water** and **clean municipal wastewater**.



In the **paper industry** they are used in the **sizing and retention parts** of the papermaking process.

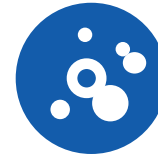


Coagulants also have an important role in the **treatment of industrial water**.



There are also many **other applications** where aluminium and iron salts play an **essential role**.

HOW THEY WORK



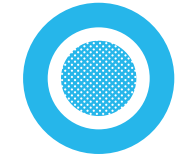
COAGULATION

Coagulants which are positively charged metal salts (Me⁺) react with the negatively charged colloids in the water to form bigger flocs.



FLOCCULATION

Then the particles form larger, heavier flocs (flocculate).



SEPARATION

Like larger particles, the flocs can be separated from the water using methods such as sedimentation, floatation or filtration.

HISTORY OF WATER TREATMENT

Egyptians introduced the use of **coagulants (Alum)** for the purification of drinking water.

4000 BC



Treatment with physical methods using **filtration, charcoal and sunlight**.

1500 BC

First trials with desalination of sea water.

300-200 BC



Romans built the first **aqueducts**; **Archimedes' screw** was introduced.



1627

1700's



Introduction of **water filters** for households.



1911

Phosphorus removal with aluminium and iron coagulants was successfully tested.

1970's



Phosphorus removal with coagulants became standard practice.



1998

The **European Drinking Water Directive** regulates the **quality of water** intended for human consumption.

2010



UN General Assembly recognised the **human right to water and sanitation**.