CHRYSION

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TURN ASBESTOS TO HEALTH & PROFIT

THE FUTURE OF ASBESTOS REMEDIATION
CHANGING THE GAME, PRESERVING THE PLANET

XEGATE SA
Via Vincenzo Vela 11, 6600 Locarno – Switzerland
+41 91 228 0398 - info@xegate.eu - www.xegate.eu
Reg. N. CHE-247.162.504 - Company Share Capital: CHF 100,000.00

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CHRYSION

MAKING ASBESTOS REMEDIATION PROFITABLE

Chrysion revolutionized the landscape of asbestos management, offering a safe, affordable, and profitable solution.

Chrysion doesn't just eliminate asbestos; it transforms it into harmless materials through a safe and efficient process. But that's not all - our method also extracts valuable resources such as magnesium (Mg), nickel (Ni), and manganese (Mn), turning asbestos remediation into a profitable venture. By recovering these sought-after metals, we not only mitigate environmental risks but also create economic opportunities.

Our process stands as a testament to our commitment to sustainability and innovation, accommodating a wide range of waste materials, including milk serum and other liquids like citrus peels and leachate
With Chrysion, asbestos remediation isn't just responsible - it's profitable.

CHRYSION BENEFITS

01 **REVENUE GENERATION**
from Magnesium (Mg), Nickel (Ni), and Manganese (Mn)

02 **SAFE ENVIRONMENT**
with no risks for workers and communities

03 **SUSTAINABLE**
Eco-friendly processes while recycling wastes

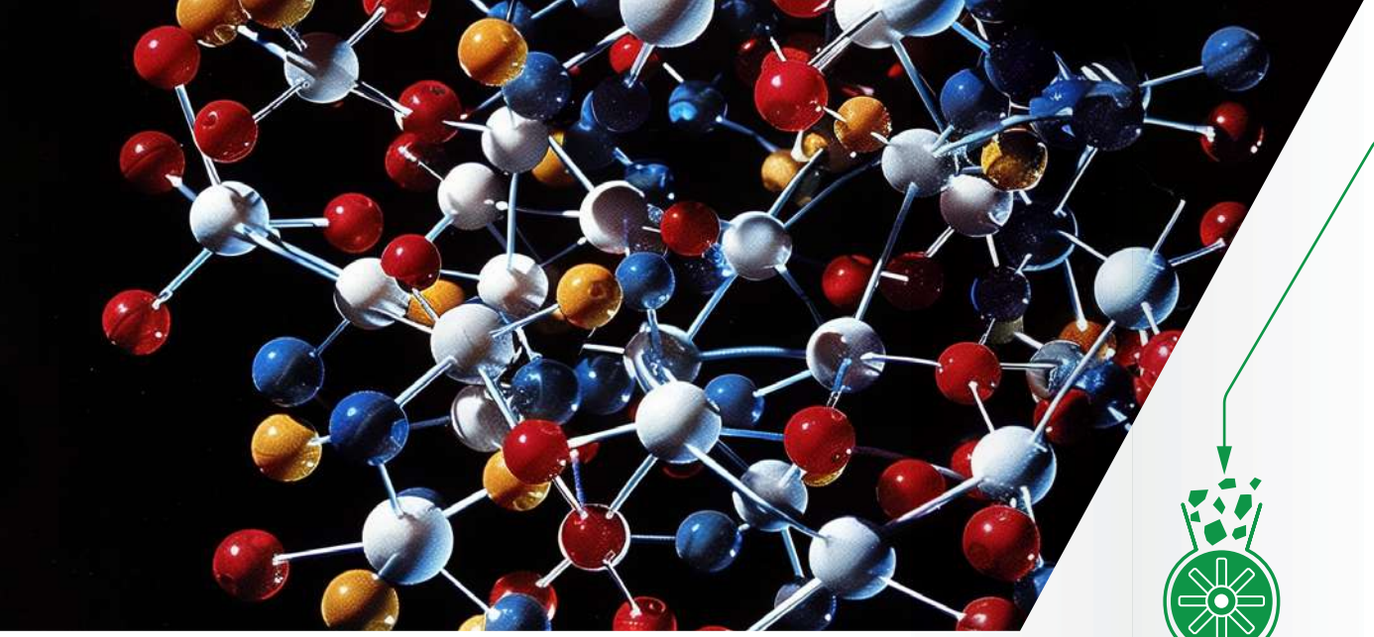
04 **FLEXIBLE**
adaptable to a wide range of waste materials

CHRYSION

Actually, what is ASBESTOS ?

Asbestos refers to a broad group of naturally occurring minerals with fibrous structures classified within the silicate class. Despite the recognized health risks, asbestos was extensively used in various industries. However, with the ratification of research findings by the World Health Organization regarding its carcinogenicity, asbestos was subsequently banned.

- *Prior to the ban, asbestos was widely utilized in the production of cement-asbestos products, including roofing, tanks, and pipes. Many of these products remain in use*
- *An alternative to landfill disposal involves chemical-physical treatments such as chemical inertization, physical inertization, ceramification, or vitrification*



FLEXIBILITY OF USING MANY TYPES OF WASTES

Chrysion offers unparalleled versatility by effectively utilizing a variety of waste materials, including milk serum and other liquids such as citrus peels and leachate, which are currently regarded as waste products. These substances serve as valuable resources in our process, acting as acidifiers to facilitate the transformation of hazardous materials like asbestos into inert compounds. Through this innovative approach, Chrysion not only addresses environmental challenges but also harnesses the potential of waste materials to create sustainable solutions.

CHRYSION


ASBESTOS

WASTE
30°C
45 min

2

3

Al + Ph
150°C - 8barg
6 hours

4

COOLING
& FILTERING

1 CRUSHING ASBESTOS

REACTOR

5

MAGNESIUM
MANGANESE
NICKEL

THE PROCESS EXPLAINED

The process utilizes, in its initial phase, the acidic properties of exhausted milk serum and its ability to attack and decompose the cementitious matrix of asbestos at room temperature.

1. Fine crushing (0.5 - 1 mm) of asbestos-containing waste
2. Transfer of crushed wastes to hermetic reactors
3. Decarbonation phase in acid wastes, 30-60 minutes at room temperature
4. Introduction of aluminum and phosphoric acid, 150°C, 6-10 atm, 6 hours
5. Cooling phase
6. Purification for use in fertilizer production

About CHRYSION
REFERENCES

PATENTED PROCESS

OBTAINED APPROVAL FROM ITALIAN MINISTRY

PILOT PLANT INSTALLED IN SOUTHERN ITALY, 20 kg BATCH

FIRST PLANT ONGOING, 30 TONS/DAY

THE INVENTOR

Professor Norberto Roveri, is a distinguished figure in Chemistry from the University of Bologna and became a Full Professor of General and Inorganic Chemistry. Prof. Roveri's research focuses on fibrous proteins, particularly collagen structure and stability, as well as the formation mechanism of inorganic deposits in biological tissues. His expertise in biomineralization processes has led to the study of polymeric matrices as nucleating agents and templates for inorganic crystals of biological and environmental significance.

NORBERTO ROVERI

Biorepair

bea BIO ECO ACTIVE

Technical Leader
Prof. of Chemistry

PLANT 30 TONS/DAY

CAPEX :	*7 M€*
OPEX :	*3 M€ / year*
REVENUES :	*11 M€ / year*
EBITDA :	*6 M€ / year*

MARKET SIZE: 150€ BILLION

CHRYSION

About Us
XEGATE

XEGATE does and supports Advanced Research & Development around the World since 2012, with major focus on the fields of cutting edge technologies, for the sake of the Earth and Mankind.

Hard working, honesty and trust are our keys in every project and we consider our Clients as our Partners and as part of ourselves.

Join Xegate, your Future is Now!

FOR QUESTIONS AND INQUIRIES
PLEASE FEEL FREE TO CONTACT US

xegate

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