

# CFS10AI

## A new generation water treatment reagent

CFS-Solvo is a universal means of coagulation, flocculation and sorption of a wide range of dissolved and suspended substances:

- ↳ *dispersoids, plankton, and humus compounds;*
- ↳ *petroleum products;*
- ↳ *other organic and inorganic substances;*

CFS is a preferred solution due to the following advantageous characteristics:

- ✓ *Toxic elements removal (As, Pb, Cu, Cd, U, Mn, Zn, Cr, etc. ....)*
- ✓ *Does not change the pH of the treated water;*
- ✓ *Wide optimum range of pH, applicable doses and temperature;*
- ✓ *Removes the causes of trihalomethane formation;*
- ✓ *The coagulation goes well at lower temperature and lower turbidity;*
- ✓ *Minimum or no additional infrastructure requirements and reduced cost of operations;*
- ✓ *Does NOT contain polymer additives;*
- ✓ *At least two times faster filter-washing time;*
- ✓ *There is no residual aluminum in the treated water!*



Manufacturer:

SOLVO Ltd

Bulgaria

+359 888 555 831

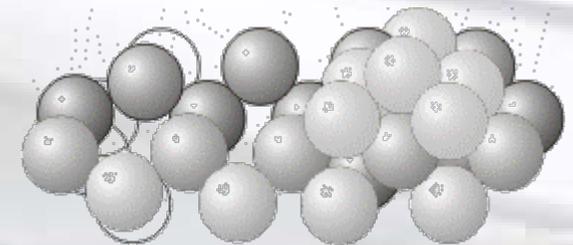
office@solvo.bg

office@solvobg.com

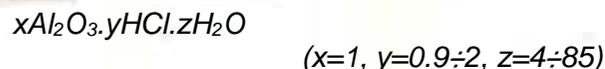
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**C**oagulant  
**F**locculant  
**S**orbent



**CFS10AI** is a reagent for physicochemical treatment of water, produced on the basis of polyaluminum chloride:



It is available as a sensitized aqueous solution.

The solution is stable at medium and high concentrations, including in a glassy state.

Upon alkalization or dilution, hydrolysis processes take place, involving the precipitation of slightly soluble hydroxy salts and aluminum hydroxide.

The hydrolysis products have sorption properties and the ability to co-precipitate particles of various types and sizes.

The high flocculating and sorbent capacity make **CFS10AI** a suitable reagent for the removal of colloidal particles, bacteria, plankton, humic compounds, petroleum products and other organic and inorganic substances. Ion-dissolved toxic elements are also removed, such as: lead, copper, zinc, nickel, cadmium, manganese, iron, chromium, mercury, arsenic, uranium, etc.

## TECHNOLOGY AND EQUIPMENT

The treatment of water with **CFS10AI** is in principle no different from that with aluminum sulphate. The differences relate primarily to dosage and mixing conditions with water. These conditions shall be selected on a case-by-case basis, taking into account the nature of the raw water contamination.

## APPLICATION SPECIFICS

Main characteristics of **CFS10AI**:

- Density: 1,3 g/cm<sup>3</sup>
- Basicity: 75±5%
- Contents: 10% Al (19% Al<sub>2</sub>O<sub>3</sub>)

► The dose is optimized for the Al<sub>2</sub>O<sub>3</sub> content, for example by trial coagulation.

► When the *pH* of the water is low, it is neutralized with lime up to *pH* > 6.5.

► In the case of treatment of water possessing higher alkalinity (or in the case of stabilization pre-treatment with lime), the preparation of a dilute **CFS** solution is allowed, in the same manner as using aluminum sulphate.

► Under normal conditions, **CFS10AI** is added without any dilution!

► **CFS10AI** is economically favourable water treatment reagent. In the case of drinking water treatment, it generally requires substantially lower treatment dose - on average approx. ten (10) times less compared to other products conforming to **EN 17034:2018** - A.3.3 Treatment dose: "The treatment dose is generally in the range of 1 mg/l to 5 mg/l, expressed as Al, depending on raw water quality."

**CFS10AI** meets the requirements of:  
BDS EN 17034:2018, EN 1302, TC 2006-95.

REACH Ref. No: 01-2119972943-24-0000  
EN# 254-400-7, CAS# 39290-78-3

## WARRANTIES

► Following this instruction guarantees treatment efficiency equal to or better than that achieved with aluminum sulphate, but at a lower residual aluminum content.

► By following the specific operating instructions (taking into account the nature of water contamination), the manufacturer guarantees a higher purification effect (compared to aluminum sulphate), *pH* preservation of the treated water and a residual aluminum content tending close to zero.

Drinking Water Treatment Plant "Bistriza"  
Sofia, Bulgaria

