

RL TRADING GELEEN

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Product Specification

Product: Locron L

Article-No.:

1-Properties

Impurity	mg/kg product	Mg/kg Aluminium	DIN EN 883 Type1
Antimony	<0.5	<4.1	<20
Arsenic	<0.5	<4.1	<14
Cadmium	<0.2	<1.6	<3
Chrome	<2.0	<16.3	<30
Lead	<0.5	<4.1	<40
Mercury	<0.25	<2.0	<4
Nickel	<1.0	<8.2	<20
Selenium	<1.0	<8.2	<20
Appearance	clear to slightly turbid aqueous solution		
Chemical Character	Basic Aluminiumchloride $\text{Al}_2(\text{OH})_5\text{Cl} \cdot 2-3 \text{H}_2\text{O}$		
Ionic Character	Cationic		
Basicity	82.5-84.0		
Odor	Characteristic		
Miscibility	In any ratio miscible in water		
Solid content	~50%		
Density at 20°C	~1.33 g/cm ³		
Shelf life	4 years under normal storage conditions		
Frost resistance	Product could freeze at low temperatures, it could be recovered after heating up and stirring.		
Eco-toxicological data	See safety data sheet		

2-Delivery specifications

Component	Unit	Value
Aluminium oxide	min-max %	22.0-23.0
Aluminium content	min-max %	12.2-12.7
Atomic ratio (Al:Cl)	--	1.91-2.10
Chloride content	min-max %	7.9-8.4
Iron	max ppm	50
pH (15% solid)	--	4.0-4.2

3-Impurity level Locron

Locron is a type 1 flocculant with the highest purity-level according to the DIN EN 883 standard.

4-Mode of action

At pH values above 5 Locron starts to form very fine Aluminiumhydroxide precipitates which are most suitable to trap particulate impurities in swimming pool water. Colloidal impurities, which make the water turbid, are difficult to remove because of their very small particle-size.

The poly-cationic character of Locron and the high charge-density force the colloidal impurities to flocculate as a result of destabilization. The formed precipitates and the Aluminiumhydroxide gels form stable floccules, which are easy to remove by filtration or settling.

Compared with Aluminiumsulfate and Polyaluminiumchloride the destabilization behavior of Locron on colloidal impurities is outstanding. Phosphate could also be eliminated under formation of water-insoluble Aluminiumphosphate.

Because of the low content of anions (chloride) in Locron the pH value will not be affected and corrosion of stainless-steel basins is not an issue.

5-Application

The dosage of Locron to the swimming pool water should work continuously with a solution containing 1-5 wt-% of the solid salt dissolved in water. Dosing pumps should be used to bring the flocculant into the circulation pipes. Due to the fast flocculation well-formed floccules can be separated in the connected filter. The consumption of flocculant depends on temperature, impurity level (number of attendance), environmental conditions, on the used installation and circulation quantity.

Preparation of Locron L dilutions:

1	1 wt-%-Solution 2 parts by weight of Locron are mixed with 98 pbw of water.
2	5 wt-%-Solution 10 pbw of Locron are mixed with 90 pbw of water.

According to the standard DIN 19643 a concentration of 0.05 g/m³ Aluminium is recommended in case of Aluminium salt flocculants.

Reference value of Locron for filtration:

Without circulation and filtration unit Locron can be distributed in the pool and left overnight for complete flocculation. After sedimentation of the floccules they can be

A	Slightly contaminated water (corresponds to ca. 0.12 g/m ³ Al) 20 ml 1 wt-% solution per m ³ bathing water. 4 ml 5 wt-% solution per m ³ bathing water.
B	Heavy contaminated water (corresponds to ca. 0,12 g/m ³ Al) 50 ml 1 wt-% solution per m ³ bathing water. 10 ml 5 wt-% solution per m ³ bathing water.

vacuumed from the pool bottom.

Heavily contaminated bathing water is often very turbid and requires higher quantities of flocculants. The optimal demand has to be determined by flocculation trials.

6-Advantages of Locron

As a result of the very high basicity Locron inserts less anions (chloride) compared to other flocculants like Polyaluminiumchloride or Aluminiumsulfate. This brings a huge advantage for avoiding corrosion and drop of pH.

Compared to Aluminiumsulfate the Locron consumption is much lower avoiding accumulation of salt.

The high efficacy of Locron increases the durability of the filtration system by a factor of 2 – 4 and reducing the number of recovery cycles significantly. This reduction of filter recoveries and the reduced amount of water for rinsing is related to cost savings.