Ferric Chloride

1. IDENTIFICATION

CHEMICAL NAME: Ferric chloride

CHEMICAL FORMULA: $FeCl_3$

MOLECULAR WEIGHT: 162,21

CAS No.: 7705-08-0

EINECS No.: 231-729-4

ONU No.: 2582

COMPOSITION: Ferric chloride solution at 40%

2. FEATURES

The commercial ferric chloride it is a brown solution, completely soluble in water (20°C) and insoluble in organic solvents.

The product is stable for approximately one year.

Chemical composition

PROPERTIES	METHOD	VALUE
$FeCl_3$ (%):	KEBE-LABO-046	39,8 ± 1,7
Ferric Iron (%)	KEBE-LABO-046	13,7 ± 0,6
Ferrous Iron (%)	KEBE-LABO-045	≤ 0,5
Chloride (%)	-	26 ± 1
Acidity, HCl (%)	KEBE-LABO-046	≤ 3,2
Free Chlorine (%)	KEBE-FABR-Flix	Free
pH 1%(V/V)	KEBE-LABO-044	2,0 ± 0,5

Physical Characteristics

PROPERTIES	VALUE
Boiling Temperature (ºC)	102,5 ± 2,5
Decomposition Temperature (ºC)	315
Flash Point	No
Specific gravity at 25ºC (g/cm^3)	1,44 ± 0,02
Viscosity at 25 ° C (mPa.s)	10 ± 5
Water solubility (20ºC)	Completely soluble
Solubility in organic solvents	Insoluble

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DETERMINATION	RESULT	ANALYSIS METHOD
Copper, ppm	403	K-Labo-Met-529
Chromium, ppm	56	K.Labo-Met.-529
Zinc, ppm	1200	K-Labo-Mat.-529
Nickel, ppm	227	K-Labo-Mat.-529
Cadmium, ppm	< 2	K-Labo-Mat.-529
Lead, ppm	33	K-Labo-Mat.-529
Mercury, ppm	< 0,5	K-Labo-Mat.-529
Selenium, ppm	< 0,1	K-Labo-Mat.-529
Arsenic, ppm	5,8	K-Labo-Mat.-529
Antimony, ppm	14	K-Labo-Mat.-529
Manganese, ppm	2440	K-Labo-Mat.-529

3. APPLICATION

- Coagulant used in physical-chemical treatment of wastewater and drinking water.
- It acts as an adjuvant in sludge dewatering.
- Precipitation of phosphorus in the wastewater.

4. BENEFITS

- The product acts in a wide pH range, achieving an effective reduction in colour and turbidity
- Odour removal from the point of dosage
- Bulking control
- Ease of application
- Low cost
- Increase of biogas production
- Better conditions of the sludge dehydration
- Reduction of maintenance costs

5. PRESENTATION

- Container 1000 l (1400 Kg);
- Drum 200 l (280 kg);