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## IRON(III) OXIDE

HI0341 Iron(III) oxide, EssentQ®

- Fe<sub>2</sub>O<sub>3</sub>
- M = 159,70 g/mol
- CAS [1309-37-1]
- EINECS-No.: 215-168-2
- Solub. in water: (20°C): insoluble
- Melting point: 1562°C (decomposes)
- Tariff number: 2821 10 00 90
- Applications: analytical chemistry, in the rubber industry (pigment), painting, in porcelain industry, in semiconductors industry, catalyst.

assay (iodometric) . . . . . min. 96 %  
 solubility in water . . . . . max. 1 %  
 phosphates (as PO<sub>4</sub>) . . . . . max. 0,3 %  
 sulfates (SO<sub>4</sub>) . . . . . max. 0,5 %  
 manganese (Mn) . . . . . max. 0,25 %  
 residue on ignition . . . . . max. 0,5 %

ART. NO.	VOLUME	CONTAINER
HI03410500	500 g	
HI03411000	1 kg	

## IRON(II) SULFATE HEPTAHYDRATE

- Synonyms: Iron vitriol
- FeSO<sub>4</sub>·7H<sub>2</sub>O
- M = 278,02 g/mol
- CAS [7782-63-0]
- EINECS-No.: 231-753-5

- Solub. in water: (20 °C): 665 g/l
- Melting point: > 60 °C (release of crystalline water)
- LD 50 (oral, rat): 319 mg/kg (anhydrous substance)
- GHS-signal word: Warning
- GHS-H sentences: H302 - H315 - H319

- GHS-P sentences: P280 - P305 + P351 + P338 - P321 - P362 - P332 + P313 - P501a
- Tariff number: 2833 29 80 80
- Applications: analytical chemistry, determining COD.

HI0350 Iron(II) sulfate heptahydrate, extra pure, Pharmpur®, Ph Eur, BP, USP



assay (cerimetric) . . . . . 99,5 - 104,5 %  
 identification . . . . . passes test  
 pH (5 %, H<sub>2</sub>O) . . . . . 3,0 - 4,0  
 arsenic (As) . . . . . max. 3 ppm  
 chlorides (Cl) . . . . . max. 200 ppm  
 chromium (Cr) . . . . . max. 50 ppm  
 copper (Cu) . . . . . max. 50 ppm  
 iron (III) (Fe (III)) . . . . . max. 0,3 %  
 lead (Pb) . . . . . max. 10 ppm

manganese (Mn) . . . . . max. 0,1 %  
 mercury (Hg) . . . . . max. 3 ppm  
 nickel (Ni) . . . . . max. 50 ppm  
 zinc (Zn) . . . . . max. 50 ppm  
 Elemental impurities are analysed according to guideline CHMP/ICH/353369/2013.  
 Residual solvents are analysed according to guideline CPMP/ICH/283/95.  
 It should not be used if it is coated with brownish spots

ART. NO.	VOLUME	CONTAINER
HI03500500	500 g	
HI03501000	1 kg	
HI0350005P	5 kg	
HI0350025P	25 kg	

HI0351 Iron(II) sulfate heptahydrate, ExpertQ®, for analysis, ACS, ISO, Reag. Ph Eur



assay (cerimetric) . . . . . 98,0 - 105,0 %  
 assay (permanganometric) . . . . . min. 99,5 %  
 identity (IR-spectrum) . . . . . passes test  
 insoluble matter . . . . . max. 0,01 %  
 appearance of solution . . . . . passes test  
 pH (5 %, H<sub>2</sub>O) . . . . . 3,0 - 4,0  
 chlorides (Cl) . . . . . max. 5 ppm  
 phosphates (as PO<sub>4</sub>) . . . . . max. 0,001 %  
 total nitrogen (as N) . . . . . max. 0,001 %  
 arsenic (As) . . . . . max. 2 ppm  
 calcium (Ca) . . . . . max. 0,005 %  
 chromium (Cr) . . . . . max. 50 ppm

copper (Cu) . . . . . max. 0,001 %  
 iron (III) (Fe (III)) . . . . . max. 0,02 %  
 lead (Pb) . . . . . max. 5 ppm  
 magnesium (Mg) . . . . . max. 0,002 %  
 manganese (Mn) . . . . . max. 0,05 %  
 nickel (Ni) . . . . . max. 50 ppm  
 potassium (K) . . . . . max. 0,002 %  
 sodium (Na) . . . . . max. 0,02 %  
 zinc (Zn) . . . . . max. 50 ppm  
 substances not precipitated by ammonium hydroxide . . . . . max. 0,05 %

ART. NO.	VOLUME	CONTAINER
HI03510500	500 g	
HI03511000	1 kg	
HI0351005P	5 kg	

## IRON(III) SULFATE HYDRATE

HI0352 Iron(III) sulfate hydrate, ExpertQ®, for analysis

- Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>·xH<sub>2</sub>O
- M = 399,87 g/mol
- CAS [15244-10-7]
- EINECS-No.: 233-072-9
- Solub. in water: (20 °C): freely soluble
- Tariff number: 2833 29 80 80
- Applications: laboratory reagent, analytical chemistry, flotation agent (water).

assay (iodometric, as Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>) . . . . . min. 75 %  
 insoluble in H<sub>2</sub>SO<sub>4</sub> . . . . . max. 0,025 %  
 chlorides (Cl) . . . . . max. 0,01 %  
 nitrates (NO<sub>3</sub>) . . . . . max. 0,02 %  
 copper (Cu) . . . . . max. 0,005 %  
 iron (II) (Fe (II)) . . . . . max. 0,1 %  
 potassium (K) . . . . . max. 0,01 %  
 sodium (Na) . . . . . max. 0,05 %

ART. NO.	VOLUME	CONTAINER
HI03520500	500 g	
HI03521000	1 kg	
HI0352005P	5 kg	