

ORTHOPHOSPHORIC ACID Food Grade

Description

Chemical formula	H3PO4		
Molecular Weight	98.0		
International Codification			
CAS No	7664-38-2		
E No	E-338		
EINECS No	231-633-2		
Customs Duty No	28 09 20 00		

Product Characteristics

Appearance : Colourless, odourless, transparent syrupy liquid

Grades (1)

H3PO4 %(-0.3, +0.5) 75.0 80.0 81.5 85.0

Method

PLC 10 – Paar Density

PLC 11

PLC 20 - Skalar

Chemical Properties	Unit	Specification	Typical analysis	Method	
F	ppm	10max 7		PLC – 14 Direct potentiometry	
Fe	ppm	10 max	7	PICP 01 – ICP*	
As	ppm	0.5 max	0.3	PICP 04 -ICP*	
Hg2	ppm	0.01 mx	< 0.01	PICP 01 – ICP*	
Pb	ppm	0.5 max	< 0.1	PICP 01 – ICP*	
Cd	ppm	0.2 max	< 0.1	PICP 01 – ICP*	
Cu	ppm	1 max	0.3	PICP 01- ICP*	
Ni	ppm	2 max	0.4	PICP 01 – ICP*	
Heavy metals (as Pb)	ppm	5 max	2.5	PLC 08 – FCC test	
Cl	ppm	20 max	< 5	PLC 04 – Trimetry	
SO4	ppm	350 max	230	PICP 01 – ICP*	

Physical Properties

ICP – Inductively Coupled Plasma

H₃PO₄ Concentration%	P ₂ O ₅ %	Density g/ml @ 20°C	Freezing Point oC	Boiling Point °C	Viscosity cP @ 30°C.	Weight of acid For 1 mT P ₂ O ₅ (mT)	Volume of acid For 1 mT P₂O₅(m3)
75.0	54.3	1.576	- 20	135	16	1.842	1.169
80.0	58	1.631	+4	150	21	1.724	1.057
81.5	59	1.648	+7	152	25	1.695	1.029
85.0	61.5	1.689	+21	158	32	1.626	0.963



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