

INSOLUBLES ~~NS 14-03-2015~~

SALTS → Compound	Temperature → Solubility	15 deg.C	20deg.C.	30deg.C.	40 deg.C.
		ppm	ppm	ppm	ppm
Aluminium Hydroxide	Al(OH)3			1	
Barium Carbonate	BaCO3	14			
Barium Chromate	BaCrO4			2.775	
Barium ferrocyanide	Ba2Fe(CN)6		97.32		
Barium Iodate	Ba(IO3)2				570
Barium Sulphate	BaSO4			2.84	
Calcium Carbonate (Aragonite)	CaCO3	7.753			
Calcium Carbonate (Calcite)	CaCO3	6.17			
Calcium bi carbonate	Ca(HCO3)2		166000		1411
				(60 deg.C)	1210
				(80 deg.C.)	860
				(90 deg.C.)	760
Calcium Hydroxide	Ca(OH)2		1730		
Calcium Sulphate	CaSO4.2H2O		26		
				(60deg.C.)	2440
				(80 deg.C.)	2340
				(100 deg.C.)	2050
Calcium Phosphate	Ca3(PO4)2		20		
DiCalcium Phosphate	CaHPO4		43		
Calcium Fluoride	CaF2	85.75			
Carbon di Oxide	CO2		1782		
Carbon Mono Oxide	CO		26		
Calcium FluoroSilicate	CaSiF6	5180			
Calcium Citrate	Ca3(C6H5O7)2		43		
Calcium Molybdate	CaMoO4		40.99		
Calcium Oxalate	CaC2O4		6.7		
Copper(I) Chloride	CuCl			99	
Copper(I) Hydroxide	CuOH			8	
Copper(I) Sulphide	Cu2S			Insoluble	
Copper(II) Chloride	CuCl2			73000	
Copper(II) Chromate	CuCrO4			340.7	
Copper(II) Sulphide	CuS			Insoluble	
Copper (II)Carbonate	CuCO3			1.462	
Dissolved Oxygen	DO2(at 0 deg.C.) (at 10 deg.C.)	14 11.3	9.1	7.6	6.5
Ferrous(II) Carbonate	FeCO3		0.6554		
Ferrous (II)Hydroxide	Fe(OH)2		0.5255		
Ferric (III)Hydroxide	Fe(OH)3		0.020 (ppb)		
Hydrogen Sulphide	H2S		3300		

INSOLUBLES LIST ~~16-03-2015~~

Compound	Temp →	15° c	20° c	30° c	40° c
Magnesium Carbonate	MgCO ₃		390		
Magnesium Hydroxide	Mg(OH) ₂			9.628	
Magnesium Phosphate	Mg ₃ (PO ₄) ₂		2.588		
Silver Chloride	AgCl		1.9		
Vanadium PentaOxide	V ₂ O ₅		8000		
Zinc Carbonate	ZnCO ₃	0.4692			
Zinc Sulphite	ZnSO ₃ .2H ₂ O		1600		
		ppm	ppm	ppm	ppm

SALT BALANCING FUNDAMENTAL CALCULATIONS

ANALYSIS [A]	COMPO UND	Active ION /Radical tested	Radical Mol.Wt. / Valency	EQ.WT. of active radical analysed	Mol.Wt of Compound /Valency	EQ.Wt.of Compound	Multipliy g factor for Direct conversion from [A]
PH							
ALK.-P		ppm					
ALK.M		ppm	M>TH	M-TH=	SODIUM	SALTS	
TH.		ppm	TH>M	TH-M=	HARDNESS	SALTS	
Ca.H		ppm					
Mg.H.		ppm					
Na.							
SOLUBILITY AT 50deg /C 90deg	<u>CATIONS</u>	<u>PPM</u>	<u>ANIONS</u>		<u>PPM</u>		
6.1- 7.7/6.84/3.81/d eases	Ca.CO3	Ca	100/2	50	100/2	50	1.0
1210/760	Ca(OH)2						
390/ 9.62/ soluble	MgCO3	Mg	100/2	50	84/2	42	0.84
175000/ 160000/ 1370000/ 610000/ soluble	Mg(OH)2						
	Na2CO3	Na	100/2	50	106/2	53	1.06
	Ca(HCO3) 2	Ca	100/2	50	162/2	81	1.62
	Mg(HCO 3)2	Mg	100/2	50	146/2	73	1.46
	Sodium						
	NaHCO3		84/2	50	84/2	42	0.84
	CHLORID E	ppm					
	CaCl2	Cl	71/2	35.5	111/2	55.5	1.56
	MgCl2	Cl	71/2	35.5	95/2	47.5	1.34
	NaCl	Cl	35.5/1	35.5	58.5/1	58.5	1.64
	SULPHAT E	ppm					
881/778/958/24 40/decrease	CaSO4	SO4	96/2	48	136/2	68	1.4
4450000/ 4880000/ soluble	MgSO4	SO4	96/2	48	120/2	60	1.25
	Na2SO4	SO4	96/2	48	142/2	71	1.48
	NITRATE	ppm					
	Ca(NO3) 2	NO3	62/1	62	164/2	82	1.32
	Mg(NO3) 2	NO3	62/1	62	148/2	74	1.2
	NaNO3	NO3	62/1	62	85/1	85	1.37
	NITRITE	ppm					

SALT BALANCING FUNDAMENTAL CALCULATIONS

soluble	NaNO ₂	NO ₂	46/1	46	69/1	69	1.5
	SILICATE	ppm					
	Na ₂ SiO ₃	SiO ₂	60/2	30	122/2	61	2.03
103/120/209/in crease	SiO ₂						
	PHOSPH ATE	ppm					
0.56/0.42/20/de crease	Ca ₃ (PO ₄) ₂	PO ₄	95/3	31.67	310/3	103.3	3.26
18000/	Ca(H ₂ PO ₄) ₂						
2.588/	Mg ₃ (PO ₄) ₂						
202000/	Na ₃ PO ₄	PO ₄	95/3	31.67	164/3	54.67	1.73
ANIONS		PPM	TOTAL				