

ACNV =  $\text{NH}_4\text{Cl} / (\text{ZnCl}_2 + \text{FeCl}_2 + \text{FeSO}_4 + \text{CaCl}_2 + \text{NaCl} + \text{KCl} + \text{MnCl}_2 + \text{MgCl}_2)$ . Ammonium chloride ( $\text{NH}_4\text{Cl}$ ) is determined by an outside lab via TKN (total Kjeldahl nitrogen). TKN times 3.82 =  $\text{NH}_4\text{Cl}$ . For the denominator use trial/error across the row of the baume' of the flux.

**Example:** The outside lab gave a result of 33.3 g/L for TKN times 3.83 = 127 g/L  $\text{NH}_4\text{Cl}$  for a 12 deg. Baume' flux. From Table 1 on the 12 deg. row by trial and error. Quad. Flux at 81 g/l  $\text{ZnCl}_2$  plus other non-volatiles "fits." ACNV =  $127/81$  (ACNV = 1.57). For values not on the table, interpolation is used.

**Table 1 Density (75 F Baume' and Specific Gravity) of  $\text{ZnCl}_2$  (& other non-volatiles) in Fluxes**

Density		-----Zinc Chloride (grams/Liter) in Flux-----					
Be'	Sp.G	ZnCl <sub>2</sub>	Mono	Double	Triple	Quad.	Penta
ACN		0	0.393	0.785	1.18	1.57	1.96
%ZnCl <sub>2</sub>		100%	71.8%	56.0%	46.0%	38.9%	33.8%
7	1.0507	58	52	48	44	42	38
8	1.0584	68	62	57	52	49	45
9	1.0662	78	71	66	61	57	52
10	1.0741	89	81	75	69	65	59
11	1.0821	99	92	85	78	73	67
12	1.0902	110	102	94	87	81	74
13	1.0985	121	113	104	96	90	82
14	1.1069	133	123	115	105	98	89
15	1.1154	144	134	125	115	107	97
16	1.1240	156	146	135	125	116	105
17	1.1328	168	157	146	135	125	113
18	1.1417	180	169	157	145	134	121
19	1.1508	192	180	168	155	143	129
20	1.1600	204	192	179	165	153	138
21	1.1694	216	204	191	175	162	146
22	1.1789	229	216	202	186	172	155
23	1.1885	241	228	214	196	181	163
24	1.1983	254	241	225	207	191	172
25	1.2083	267	253	237	218	201	181
26	1.2186	279	266	249	229	211	190
27	1.2289	292	278	261	240	221	199
28	1.2393	306	291	273	251	231	208
29	1.2500	319	304	286	263	241	217
30	1.2609	332	317	298	274	252	226