

## AU-28 Convert function

Thurs 28 draft. Changes: Split instructions. Clarify BTU table. Add instruction on accuracy. Fix ? typo. Change ml to l in one case. Add CZ\_mug on request from CZ. Add accuracy note on uk\_pt on request from ECMA.

### Instruction 1

S 3.1.7.7.48 change table liquid measures to include regional variants and give results according to SI liter.

Liquid Measure			
<i>Unit String</i>	<i>Meaning</i>	<i>Family Conversion Factor (Informative)</i>	<i>Metric Conversion Factor (Informative)</i>
l or lt	Liter		
ml	Milliliter	1/1000 l	1/1000 l
gal	U.S. gallon (reduced accuracy)	8 pt	3.7854 l +/-0.025%  For the purpose of comparison with calculations by applications using the antecedents to this standard, the specific metric conversion factor value of 3.78624 l may be appropriate.
qt	U.S. liquid quart (reduced accuracy)	2 pt	946.35 ml +/-0.025%
pt	U.S. liquid pint (reduced accuracy)		473.18 ml +/-0.025%
cup	U.S. cup (reduced accuracy)	½ pt	236.59 ml +/-0.025%
oz	U.S. fluid ounce (reduced accuracy)	1/16 pt	29.573 ml +/-0.025%
tbs	U.S. tablespoon (reduced accuracy)	½ oz	14.787 ml +/-0.025%
tsp	U.S. teaspoon (reduced accuracy)	1/6 oz	4.9289 ml +/-0.025%
imperial_gal or AU_gal or CA_gal or GB_gal	Imperial gallon	8 imperial_pt	4.54609 l
imperial_qt or AU_qt or	Imperial quart	2 imperial_pt	1.1365225 l

CA_qt or GB_qt			
imperial_pt or AU_pt or CA_pt or GB_pt or uk_pt	Imperial pint		0.56826125 l  uk_pt may be reduced accuracy: +/- 0.025%
metric_cup or AU_cup or CA_cup or NZ_cup	Metric cup		250 ml
imperial_oz or AU_oz or CA_oz or GB_oz	Imperial fluid ounce	1/20 imperial_pt	28.4130625 ml
AU_tbs	Australian tablespoon		20 ml
GB_tbs or CA_tbs or JP_tbs	United Kingdom tablespoon		15 ml
metric_tsp or AU_tsp or CA_tsp or JP_tsp or GB_tsp	Metric teaspoon		5 ml
JP_cup	Japanese cup		200 ml
CZ_mass	Czech mass		1.4147 l
CZ_mug	Czech mug	¼ CZ_mass	0.358 l
US_gal	U.S. gallon	8 US_pt	3.785412 l
US_qt	U.S. liquid quart	2 US_pt	946.3529 ml
US_pt	U.S. liquid pint		473.1765 ml
US_cup	U.S. cup	½ US_pt	236.5882 ml
US_oz	U.S. fluid ounce	1/16 US_pt	29.57353 ml
US_tbs	U.S. tablespoon	½ US_oz	14.78676 ml
US_tsp	U.S. teaspoon	1/6 US_oz	4.928922 ml

## Instruction 2

Part 1, •3, “Normative References”, add the following:

- i) “NIST Guide to SI Units”, <http://physics.nist.gov/Pubs/SP811/appenB9.html>
- ii) “National Measurement Regulations 1999” Commonwealth of Australia  
<http://scaleplus.law.gov.au/html/pastereg//3/1519/pdf/NatMeasurement1999.pdf>
- iii) “The Units of Measurement Regulations 1995”, United Kingdom  
[http://www.opsi.gov.uk/si/si1995/Uksi\\_19951804\\_en\\_2.htm](http://www.opsi.gov.uk/si/si1995/Uksi_19951804_en_2.htm)

**Instruction 3**

The editor shall update the Energy table in the following fashion, clarifying that BTU is BTUIT:

Unit String	Meaning
BTU or btu	BTU <sub>IT</sub>

**Instruction 4**

The editor is instructed to double check all references in the conversion tables to remove any ambiguity.

**Instruction 5**

The editor is enquire of ECMA any accuracy constraints and note them informatively, following the model of the liquid measures table above.