Liquid Density Cheat Sheet (Kitchen Scale Reference)

This reference is designed for those who prefer weighing liquids instead of using measuring spoons or cups. Values are practical kitchen approximations and are accurate enough for everyday cooking.

Key Principle

- Water = 1 ml = 1 g
- Oils are lighter than water
- Sugary liquids are heavier than water
- Small rounding differences do not matter for home cooking

Oils (Lighter than Water)

Ingredient	Density (approx.)	Practical Conversion
Olive oil	~0.91 g/ml	10 ml ≈ 9 g
Canola oil	~0.92 g/ml	10 ml ≈ 9 g
Sesame oil	~0.92 g/ml	10 ml ≈ 9 g

Rule: Oils → 1 ml ≈ 0.9 g

Alcohol & Cooking Liquids

Ingredient	Density	Practical Conversion
Sake	~1.00 g/ml	10 ml ≈ 10 g
Cooking wine	~0.99–1.00 g/ml	10 ml ≈ 10 g

Rule: Treat as water.

Vinegars

Ingredient	Density	Practical Conversion
Rice vinegar	~1.00 g/ml	10 ml ≈ 10 g
Apple cider vinegar	~1.01 g/ml	10 ml ≈ 10 g
Wine vinegar	~1.00 g/ml	10 ml ≈ 10 g

Rule: Differences can be ignored.

Milk & Milk-Like Liquids

Ingredient	Density	Practical Conversion
Whole milk	~1.03 g/ml	10 ml ≈ 10 g
Low-fat milk	~1.02 g/ml	10 ml ≈ 10 g
Soy milk	~1.01–1.03 g/ml	10 ml ≈ 10 g
Almond/Oat milk	~1.00–1.02 g/ml	10 ml ≈ 10 g

Rule: Use 1 ml = 1 g.

Japanese Seasonings (Denser)

Ingredient	Density	Practical Conversion
Soy sauce (regular or low-sodium)	~1.12 g/ml	10 ml ≈ 11 g
Mirin	~1.15 g/ml	10 ml ≈ 11–12 g
Mentsuyu	~1.10 g/ml	10 ml ≈ 11 g

Rule: Add ~10% weight vs ml.

Sweet / Syrupy Liquids (Heavier)

Ingredient	Density	Practical Conversion
Honey	~1.42 g/ml	10 ml ≈ 14 g
Maple syrup	~1.33 g/ml	10 ml ≈ 13 g
Molasses	~1.45 g/ml	10 ml ≈ 14–15 g
Corn syrup	~1.38 g/ml	10 ml ≈ 14 g

Rule: Always weigh syrupy liquids.

Slurries & Water-Based Mixes

- Water: 10 ml = 10 g
- Weigh dry starch first, then add water by weight
- Do not convert slurry volume directly

Ultra-Simple Personal Rules

- Water, vinegar, milk, soy milk, sake → 1 ml = 1 g
- Soy sauce, mirin → +10% weight
- Oils → −10% weight
- Honey & syrups → weigh exactly
- Dry starches → grams only