

Saponification (SAP) Value Chart — 40 Oils

SAP values show how much lye is needed per gram of oil. **Formula: Lye (g) = Oil weight (g) × SAP value.** Water is normally 33–38% of the NaOH weight. KOH figures are for 100% pure KOH — divide by your purity (e.g. 0.90) for technical-grade flakes. Always verify a recipe with a second calculator before making soap.

Oil	NaOH SAP	KOH SAP	Usage %	Available
Olive Oil	0.1353	0.1895	30-100%	Available
Coconut Oil (76deg)	0.1903	0.2666	15-30%	—
Palm Oil	0.1413	0.1979	25-50%	—
Sweet Almond Oil	0.136	0.1906	5-20%	Available
Castor Oil	0.1286	0.1801	5-10%	—
Apricot Kernel Oil	0.135	0.189	5-20%	Available
Grape Seed Oil	0.1265	0.1773	5-15%	Available
Black Seed Oil	0.1365	0.1914	5-15%	Available
Laurus nobilis fruit oil	0.144	0.202	12-40% (Aleppo) / 5-15% (CP)	Available
Sunflower Oil	0.1355	0.1898	5-15%	—
Avocado Oil	0.1339	0.1875	5-20%	—
Shea Butter	0.1282	0.1795	5-15%	—
Cocoa Butter	0.1378	0.193	5-15%	—
Mango Butter	0.1371	0.192	5-15%	—
Jobba Oil	0.069	0.0966	5-10%	—
Hemp Seed Oil	0.1345	0.1883	5-15%	—
Rice Bran Oil	0.1284	0.1798	10-20%	—
Sesame Oil	0.1334	0.1868	5-15%	Soon
Babassu Oil	0.1749	0.2449	10-30%	—
Palm Kernel Oil	0.156	0.2184	15-30%	—
Lard	0.1408	0.1972	30-100%	—
Tallow (Beef)	0.1419	0.1987	30-100%	—
Argan Oil	0.1362	0.1907	5-10%	—
Canola Rapeseed Oil	0.1328	0.186	10-30%	—
Soybean Oil	0.1358	0.1902	10-30%	—
Neem Oil	0.1387	0.1942	2-5%	—
Tamanu Oil	0.141	0.1974	5-10%	—
Pomegranate Seed Oil	0.13	0.182	3-8%	Soon
Rose Hip Seed Oil	0.1378	0.193	5-10%	Soon
Fig Seed Oil	0.135	0.189	3-8%	Soon
Kukui Nut Oil	0.1351	0.1892	5-10%	—
Meadowfoam Seed Oil	0.1197	0.1676	5-10%	—
Evening Primrose Oil	0.1358	0.1902	3-8%	—
Flax Seed Oil	0.1358	0.1902	5-10%	—
Walnut Oil	0.1353	0.1894	5-10%	—
Cherry Kernel Oil	0.1389	0.1945	5-15%	—
St. Johns Wort Oil	0.1353	0.1895	3-8%	—
Calendula Oil	0.1353	0.1895	3-10%	—
Hazelnut Oil	0.1356	0.1899	5-15%	—
Pumpkin Seed Oil	0.1331	0.1864	5-10%	—

Source: sekiyasourcing.com/saponification-chart · Free lye calculator: sekiyasourcing.com/lye-calculator · Oils marked *Available* can be ordered from Sekiya Sourcing. Lye is caustic — goggles and gloves required.