

The Correct Fuel Mixture Ratio

All two stroke engine will use a 50 to 1 ratio using today's two stroke oils. I once used an old chainsaw from the 1960s, that had a sticker on it that said to use a 25 to 1 fuel/oil ratio, but that would have been unusual in the period the chainsaw was manufactured. In that chainsaw I used 50 to 1 ratio with no problems. Modern chainsaws compared to yesteryears are more efficient at lubricating. It is like comparing today's synthetic motor oils to those of decades ago. All the equipment I use in landscaping, anything from a weed eater, leaf blower, chainsaw, etc. use a 50 to 1 ratio, and I use all types of makes and models, Stihl, Homelite, Husqvarna, Shindaiwa, a 1 liter fuel can and use it in all of the equipment for my customers and for my landscaping. To calculate the amount of oil, for instance, if you have 1 gallon of fuel it is best to break it down into smaller units, like ounces. One gallon divided by the ratio of the mixture which is 50 to 1 (50 parts fuel, 1 part oil). So there would be 128 / 50 = 2.56 oz (you would just measure out 2.5 oz) of two stroke oil. If using metric, say a 5L gas can divided into smaller units, which would be milliliters. 5L = 5000 ml. 5000 ml of fuel divided by 50 = 100 ml of oil.

Gasoline is very dangerous. Work only in a well ventilated area, away from any source of fire.

Some people think that if the fuel/oil ratio is wrong the engine will run rough or not start, this is false. If you use two stroke oil you will just seize the engine (time for a new engine), a customer once forgot to put oil in the fuel and then used it in a Shindaiwa weed eater, it lasted about two minutes and the engine seized. And if you use a 50:1 engine will just blow a lot of blue smoke out of the exhaust and gum up the muffler with a thick gunk. This can damage the engine using too much oil, but it sure stinks and have blue smoke blowing everywhere. Always use the correct fuel to oil mix ratios.

Gas and Oil Mixing Charts

	16:1	24:1	32:1	40:1	50:1		16:1	24:1	32:1	40:1	
Litres	Millimetres of Oil					Imp Gal	Imp Ounces of Oil				
5	300	200	150	125	100	1	8.0	5.5	4.0	3.0	
10	625	425	300	250	200	2	16.5	11.0	8.5	7.0	
15	950	625	475	375	300	3	25.0	16.5	12.5	10.0	
20	1250	825	625	500	400	4	33.5	22.0	16.5	13.0	
25	1550	1050	775	625	500	5	41.5	27.5	21.0	16.0	

	16:1	24:1	32:1	40:1	50:1		16:1	24:1	32:1	40:1	
US Gal	US Ounces of Oil					Litres	US Ounces of Oil				
1	8.0	5.5	4.0	3.0	2.5	5	10.5	7.0	5.5	4.0	
2	16.0	10.5	8.0	6.5	5.0	10	21.0	14.0	10.5	8.0	
3	24.0	16.0	12.0	9.5	7.5	15	32.0	21.0	16.0	12.0	
4	32.0	21.5	16.0	13.0	10.0	20	42.5	28.0	21.0	16.0	
5	40.0	26.5	20.0	16.0	13.0	25	53.0	35.0	26.5	20.0	

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	16:1	24:1	32:1	40:1	50:1		16:1	24:1	32:1	40	
US Gal	Millilitres of Oil					Imp Gal	Millilitres of C				
1	225	150	125	100	75	1	275	200	150	12	
2	475	325	225	200	150	2	575	375	275	22	
3	700	475	350	275	225	3	850	575	425	35	
4	950	625	475	375	300	4	1125	750	575	45	
5	1175	800	600	475	375	5	1425	950	700	57	

Two Stroke Fuel to Oil Mixture Ratio CALCULATOR
128 oz (1 gallon gas) divided by RATIO (16:1)

Type in a value in the first field below ...

8 milliliters x 0.338140226 = ounces of oil needed