



TECHNICAL BULLETIN

Two Stroke Oils & Mix Ratios

Issue: November 2014

Penrite provide a range of two stroke oils for most applications with specific products and specifications to cover general purpose, marine, motorcycle and specialised usages. The range includes premium mineral, semi synthetic and full synthetic products. Our Marine 2 Stroke oils are NMMA TC-W3 Approved for use with most major marine engine manufacturers for peace of mind boating.

General Purpose 2 Stroke Oils

GREENKEEPERS 2 STROKE is a premium mineral 2 stroke oil suitable for air-cooled two stroke engines in motor mowers, brush cutters and other agricultural and industrial Two Stroke power units. Product is to be used at the engine manufacturers' recommended mix ratio.

Industry Specifications: API TC, JASO FB.

HI-PER 2 STROKE is a high performance, semi-synthetic two stroke, low smoke oil suitable for warranty service in Two Stroke engines requiring API TC/JASO FC oils or higher. Suitable for garden equipment, chainsaws as well as Sea-Doo jet skis. Product is to be used at the engine manufacturers' recommended mix ratio.

Industry Specifications: API TC, JASO FC, ISO EG-C.

Motorcycle 2 Stroke Oils

MC-2ST SEMI SYNTHETIC is a semi synthetic two stroke engine oil suitable for high performance machinery such as motorbikes and go karts operating under race conditions. Product is to be used at the engine manufacturers' recommended mix ratio.

Industry Specifications: API TC, JASO FD, ISO EG-C.

MC-2ST FULL SYNTHETIC is a full synthetic, ester based two stroke oil for high performance motorbikes, go karts and in other severe Two Stroke applications. It exceeds ISO EG-D and JASO FD. It is 64% biodegradable according to OECD 301B, making it friendlier to the environment than mineral oils. Product is to be used at the engine manufacturers' recommended mix ratio.

Industry Specifications: API TC, JASO FD, ISO EG-D.

Marine 2 Stroke Oils

MARINE OUTBOARD 2 STROKE is a low smoke oil suitable for use in water cooled outboard engines using both oil-injection and pre-mix fuel systems as well as the new direct injection engines. Product is to be used at the engine manufacturers' recommended mix ratio.

Approved: NMMA TC-W3[®] Number RL-00419J. API TC, JASO TB, ISO EG-B

BIOMARINE OUTBOARD 2 STROKE is a fully synthetic two stroke engine oil suitable for premix and direct injection fuel systems, which can also be used in large capacity outboards. Product is 67% biodegradable so it's also friendlier to the marine environment than mineral oils. Product is to be used at the engine manufacturers' recommended mix ratio.

Approved: NMMA TC-W3[®] Number RL-33201M. API TC

CASTOR OIL

10 TENTHS RACE CASTOR is an ashless SAE 20W-40 engine oil manufactured from high quality castor vegetable oil, synthetic ester, anti-corrosion additives and an advanced anti-oxidant. Suitable for high performance engines such as international Go Karts running at 16:1 and model aircraft engines. Has the advantages of a castor-based product, including a naturally higher and stronger film strength, very high load carrying capacity, better wetting properties and reduced power loss due to friction. Contains corrosion inhibitors to combat potential problems with excess moisture when running with methanol fuels. Can be run as a 2 stroke or 4 stroke oil.



See next page for comprehensive Mixing Ratio Chart

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Comprehensive Mix Ratio Chart

Fuel / Oil Ratio	ml per 1 Litre of fuel	ml per 5 Litres of fuel	ml per 10 Litres of fuel	ml per 20 Litres of fuel
5:1	200	1000	2000	4000
10:1	100	500	1000	2000
15:1	67	333	667	1333
16:1	63	313	625	1250
20:1	50	250	500	1000
25:1	40	200	400	800
30:1	33	167	333	667
33:1	30	152	303	606
35:1	29	143	286	571
40:1	25	125	250	500
45:1	22	111	222	444
50:1	20	100	200	400
55:1	18	91	182	364
60:1	17	83	167	333
65:1	15	77	154	308
70:1	14	72	143	286
75:1	13	67	133	267
80:1	13	63	125	250
85:1	12	60	120	240
90:1	11	55	110	220
95:1	11	53	105	210
100:1	10	50	100	200

For Example:

If your brush cutter requires a 25:1 Fuel to Oil ratio and you have a 5 Litre fuel container, you would add 200 ml of Two Stroke oil to your fuel container prior to re-fuelling.

Information is correct as of November 2014

Penrite recommend "The Right Oil for the Right Application"

[Click Here](#) to visit the Penrite Recommendation Guide, which will ensure you receive the correct oil for your application



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