

# QUAKER STATE® ITASCA STERLING 2-CYCLE (TC-W3)

## TECHNICAL DATA SHEET



Quaker State® 2-Cycle Motor Oil exceeds the NMMA highest quality standards and is certified for TC-W® TCWII® TC-W3® (F/M 4 category good to -40°C) at the engine manufacturer's recommended fuel/oil ratio. It is a premium quality, ashless oil formulated for injecting or premixing with today's unleaded fuels. Quaker State® 2-Cycle Motor Oil uses superior base stocks combined with the most advanced two-cycle additive chemistry designed for the exacting requirements of all two-cycle engines. However, it is specifically recommended where an ashless high performance oil is required.

With today's large bore, high output engines with oil injection systems, leaner ratios and unleaded fuel restrictions, the use of a high quality TC-W3® F/M 4 2-cycle motor oil is a must! New chemistry avoids traditional gellation concerns that customers have experienced in the past.

### PERFORMANCE, FEATURES & BENEFITS

- Exceeds the NMMA TC-W3 F/M 4 requirements at the engine manufacturers' fuel/oil ratio and API TC category
- Improved lubricity which meets the requirements of all two-cycle engines
- Contains a blue dye for mixing identification
- A must in two-cycle engines 40 HP and higher
- Additive chemistry provides "very good" "air cooled" performance, particularly suitable in snowmobiles
- Soluble in gasoline without loss of lubricating properties in mix ratios up to 100:1
- Improved cleanliness
- Prevention of carbon deposits
- Excellent high temperature performance
- Superior gel/flock resistance
- Recommended where an ashless high performance oil is required
- Complete, easy mixing in gasoline at cold temperatures
- Prevention of piston rings sticking

- Prevention of piston skirt scoring

- Provides the ultimate in protection and performance for two-cycle engines

### MAIN APPLICATIONS

Quaker State® 2-Cycle Motor Oil is recommended for use in O.M.C., Mercury, Suzuki, Yamaha and other manufacturers of water/liquid cooled two-cycle engines. It is recommended for use in all snowmobiles, motorcycles, lawn mowers, chain saws, golf carts, ATV's, scooters, mopeds and small HP engines calling for an API TC category two-cycle motor oil and/or a category FIM 4 motor oil. Quaker State® 2-Cycle Motor Oil can be used in mix ratios up to 100:1.

### SPECIFICATIONS, APPROVALS & RECOMMENDATIONS

For a full listing of equipment approvals and recommendations, please consult your local Technical Help Desk.

To find the right Quaker State® product for your vehicles and equipment, please consult [www.quakerstate.com](http://www.quakerstate.com) to look up the right motor oil recommendation using our oil selector.

### TYPICAL PHYSICAL CHARACTERISTICS

# QUAKER STATE® ITASCA STERLING 2-CYCLE (TC-W3)

Properties	Method	QS ITASCA Sterling 2-Cycle (TC-W3)
Appearance		Blue
Density	@15°C	0.867
Pour Point		-48°C
Flash Point (PMCC)		80°C
Fire Point		96°C
Viscosity Index		146
Viscosity	@40°C MM 2/5	28.5
Viscosity	@100°C MM 2/5	5.7
Viscosity Brookfield	@40°C cP	14300
Meets mix ratios up to		100:1
MSDS Number		614994
Material Number 12 x 500 mL CS		11079
Material Number 12 x 946 mL CS		29051
Material Number 4 x 4 L CS		5044485

These characteristics are typical of current production. While future production will conform to Quaker State's® specification, variations in these characteristics may occur.

## HEALTH, SAFETY & ENVIRONMENT

### Health and Safety

Quaker State® 2-Cycle Motor Oil is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from [www.epc.shell.com](http://www.epc.shell.com)

### Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## ADDITIONAL INFORMATION

### Advice

Advice on applications not covered here may be obtained from your Quaker State® Lubricants distributor representatives or technical help desks.