

Co-op provides a comprehensive portfolio of high-quality, two-cycle engine oils. Designed for use in both pre-mix and direct injection applications, these products are formulated to meet a variety of low-ash requirements.

### **TECHNICAL DATA SHEETS**

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### **SONIC<sup>®</sup> DYNAMIX PLUS<sup>®</sup>** SYNTHETIC BLEND UNIVERSAL TWO-CYCLE ENGINE OIL

### **PRODUCT DESCRIPTION**

SONIC<sup>®</sup> DYNAMIX PLUS<sup>®</sup> is a high-quality synthetic blend universal two-cycle engine oil. The premium ashless formula provides exceptional lubricity, to reduce engine wear and extend engine life. It's advanced formula is an exceptional choice for both direct injection and pre-mix engines.

### **PERFORMANCE FEATURES**

- High temperature oxidation control
- Extended engine life
- Reduced engine deposits
- Controls piston and cylinder scuffing
- Excellent rust and corrosion protection
- Improved light throttle operation
- Balanced formula reduces exhaust smoke

### **APPLICATIONS**

SONIC DYNAMIX PLUS<sup>®</sup> is recommended for two-cycle outboard engines, personal watercraft, ATV's, low output chainsaws, weed trimmers and leaf blowers. It works in most water-cooled and air-cooled applications and is designed to meet the high performance requirements of major outboard engine manufacturers including Mercury, Mariner, Johnson, Evinrude, Yamaha and Suzuki.

\*Do not use in Orbital or Ficht designed engines.

### **TECHNICAL PROPERTIES**

PROPERTIES	TEST METHODS	SONIC <sup>®</sup> DYNAMIX PLUS <sup>®</sup>
Kinematic Viscosity cSt @ 40°C	ASTM D445	43.9
Kinematic Viscosity cSt @ 100°C	ASTM D445	8.1
Viscosity Index	ASTM D2270	160
Pour Point, °C	ASTM D97	-45°
Brookfield Viscosity cP @ -25°C	ASTM D2983	3,439

### **SONIC® DYNAMIX PLUS®** SYNTHETIC BLEND UNIVERSAL TWO-CYCLE ENGINE OIL

### **PERFORMANCE SPECIFICATIONS**

In the appropriate grade, SONIC<sup>®</sup> DYNAMIX PLUS<sup>®</sup> is approved and/or recommended for use in the following:

INDUSTRY / OEM	SONIC® DYNAMIX PLUS® SPECIFICATIONS
API	TC
JASO	FB
NMMA	TC-W3 / TC-WII <sup>™</sup> / TC-W <sup>™</sup>

### SAFETY DATA SHEETS

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at www.www.fuel.crs.

### **PRODUCT SELECTION**

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	SONIC <sup>®</sup> DYNAMIX PLUS <sup>®</sup>
1 L Bottle	$\checkmark$
5 L Bottle	$\checkmark$
10 L Bottle	
20 L Pail	
110 L Drum	
205 L Drum	
1000 L Tote	

### RECYCLING OF USED LUBRICANTS AND CONTAINERS

Please protect the environment when disposing of petroleum products. All products should be taken to an authorized collection facility or picked up by a qualified organization. This ensures the products will be disposed of in an environmentally sensitive manner. For additional information on used-oil recycling programs, please see the following:

- Saskatchewan www.usedoilrecyclingsk.com
- Alberta www.usedoilrecyclingab.com
- British Columbia www.bcusedoil.com
- Manitoba www.usedoilrecycling.com/en/mb

### **CONTACT INFO**

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petroadmin@fcl.crs • www.fuel.crs • www.agro.crs





### **SONIC<sup>®</sup> XL-S** SYNTHETIC BLEND INJECTION TWO-CYCLE ENGINE OIL

### **PRODUCT DESCRIPTION**

SONIC<sup>®</sup> XL-S is an advanced synthetic-blend, low-ash, two-cycle engine oil. It is designed as a high-quality alternative to OEM-branded products for a wide variety of high-output recreational vehicles. SONIC<sup>®</sup> XL-S offers superior performance in high-performance applications and is designed to exceed the performance requirements for API TC, SAE fluidity/miscibility grade 4, JASO (Japanese Automobile Standards Organization) FC Plus and ISO (International Standards Organization) L-EGC and L-EGD. It meets or exceeds the warranty requirements of original engine manufacturers requiring low-ash engine oil.

### **PERFORMANCE FEATURES**

- Superior protection of exhaust power valves
- Low smoke
- Increased engine life
- Emissions reductions
- Anti-scuff performance
- Ring stick protection
- Improved engine cleanliness
- Corrosion protection
- Superior low temperature performance
- Compatible with fuels containing alcohol

### **APPLICATIONS**

SONIC<sup>®</sup> XL-S is blended primarily for direct-injection applications but can also be used in tank mixes up to 100:1 (as specified by the OEM). This oil is suitable for both EFI (electronic fuel injection) and DFI (direct fuel injection) engines. It is recommended for the following two-stroke applications: snowmobiles (including racing machines), personal watercrafts, high-impact chainsaws, motocross bikes, ATVs, lawn mowers, string trimmers and other garden equipment.

### **TECHNICAL PROPERTIES**

PROPERTIES	TEST METHODS	SONIC <sup>®</sup> XL-S
Kinematic Viscosity cSt @ 40°C	ASTM D445	44.6
Kinematic Viscosity cSt @ 100°C	ASTM D445	8.1
Viscosity Index	ASTM D2270	157
Pour Point, °C	ASTM D97	-57°

### **SONIC<sup>®</sup> XL-S** SYNTHETIC BLEND INJECTION TWO-CYCLE ENGINE OIL

### **PERFORMANCE SPECIFICATIONS**

In the appropriate grade, SONIC<sup>®</sup> XL-S is approved and/or recommended for use in the following:

INDUSTRY / OEM	SONIC <sup>®</sup> XL-S SPECIFICATIONS
API	TC
ISO	L-EGC
	L-EGD
JASO	FC
	FD

### **SAFETY DATA SHEETS**

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at www.www.fuel.crs.

### **PRODUCT SELECTION**

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	SONIC <sup>®</sup> XL-S
1 L Bottle	$\checkmark$
5 L Bottle	$\checkmark$
10 L Bottle	
20 L Pail	
110 L Drum	
205 L Drum	
1000 L Tote	

### RECYCLING OF USED LUBRICANTS AND CONTAINERS

Please protect the environment when disposing of petroleum products. All products should be taken to an authorized collection facility or picked up by a qualified organization. This ensures the products will be disposed of in an environmentally sensitive manner. For additional information on used-oil recycling programs, please see the following:

- Saskatchewan www.usedoilrecyclingsk.com
- Alberta www.usedoilrecyclingab.com
- British Columbia www.bcusedoil.com
- Manitoba www.usedoilrecycling.com/en/mb

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### **SONIC<sup>®</sup> 4-STROKE SL** SYNTHETIC POWER SPORT ENGINE OIL

### **PRODUCT DESCRIPTION**

SONIC<sup>®</sup> 4-STROKE SL is a premium, full-synthetic 4-stroke motor oil. It is designed specifically for nonautomotive, high-output/high RPM power-sport motors. SONIC<sup>®</sup> 4-STROKE SL combines a unique blend of fully synthetic polyalphaolefin (PAO) base oils and industryleading additives. This combination ensures a superior level of protection in applications that can produce RPM levels near double that of their automotive counterparts.

#### **PERFORMANCE FEATURES**

- 100% synthetic formulation
- Wet clutch compatible
- Superior operating range -35°C to 35°C
- Hyper ZDDP technology provides wear protection and catalyst life
- Improved engine cleanliness
- Exceptional corrosion protection

### **APPLICATIONS**

SONIC<sup>®</sup> 4-STROKE SL is engineered to withstand the punishment endured by high performance engines in snowmobiles, ATVs, motorcycles and outboard motors. This product is also suitable for 4-stroke snow throwers, generators, lawn mowers and garden tractors.

\* This product does not contain friction modifiers. Most non-automotive/power sport applications require lubricants manufactured in this manner.

### **TECHNICAL PROPERTIES**

PROPERTIES	TEST METHODS	SAE 5W-50
Kinematic Viscosity cSt @ 40°C	ASTM D445	99.8
Kinematic Viscosity cSt @ 100°C	ASTM D445	16.5
Viscosity Index	ASTM D2270	175
Pour Point, °C	ASTM D97	-60°

### **SONIC<sup>®</sup> 4-STROKE SL** SYNTHETIC POWER SPORT ENGINE OIL

### **PERFORMANCE SPECIFICATIONS**

SONIC<sup>®</sup> 4-STROKE SL meets or exceeds OEM engine oil warranty requirements in applications calling for the following:

INDUSTRY/OEM	SONIC <sup>®</sup> 4-STROKE SL SPECIFICATIONS
API	SM
JASO	MA
NMMA	FC-W
	FC-W Catalyst Compatible

### **SAFETY DATA SHEETS**

Product-specific safety data sheets (SDS) can be obtained by contacting your local retail Co-op or Federated Co-operatives Limited (see contact information below) or by going online at www.www.fuel.crs.

### **PRODUCT SELECTION**

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	5W-50
1 L Bottle	$\checkmark$
5 L Bottle	
10 L Bottle	
20 L Pail	
110 L Drum	
205 L Drum	
1000 L Tote	

#### RECYCLING OF USED LUBRICANTS AND CONTAINERS

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## SONIC<sup>®</sup> TWO-CYCLE

### **PRODUCT DESCRIPTION**

SONIC<sup>®</sup> TWO-CYCLE ENGINE OIL is a high-quality, multipurpose two-cycle engine oil recommended for both airand water-cooled two-stroke engines. It is designed for both pre-mix and direct-injection applications. SONIC<sup>®</sup> TWO-CYCLE ENGINE OIL has been formulated to meet a variety of manufacturers' low-ash requirements.

### **PERFORMANCE FEATURES**

- Minimizes ring sticking and spark plug fouling
- Protects against rust, corrosion and exhaust system deposits
- Pre-diluted for easier mixing at all temperatures
- Prevents piston scuffing
- Eliminates pre-ignition
- Qualified TC and low ash

### **APPLICATIONS**

SONIC<sup>®</sup> TWO-CYCLE ENGINE OIL is recommended for two-cycle engines requiring a fuel/oil ratio of 50:1 or less and a NMMA low-ash formulation. SONIC<sup>®</sup> TWO-CYCLE ENGINE OIL can be used in chainsaws, lawn mowers, snow throwers and utility motors that require a two-stroke engine oil. In all cases, the manufacturer's recommendations should be consulted.

\*Do not use this product in equipment that calls for a synthetic two-cycle engine oil.

### **TECHNICAL PROPERTIES**

PROPERTIES	TEST METHODS	SONIC <sup>®</sup> TWO-CYCLE ENGINE OIL
Kinematic Viscosity cSt @ 40°C	ASTM D445	30.7
Kinematic Viscosity cSt @ 100°C	ASTM D445	5.8
Viscosity Index	ASTM D2270	134
Pour Point, °C	ASTM D97	-51°

## SONIC<sup>®</sup> TWO-CYCLE

TWO-CYCLE ENGINE OIL

### **PERFORMANCE SPECIFICATIONS**

SONIC<sup>®</sup> TWO-CYCLE ENGINE OIL is approved and/or recommended for use in the following:

INDUSTRY / OEM	SONIC <sup>®</sup> TWO–CYCLE SPECIFICATIONS
API	TC
ISO	L-EGC
	L-EGD
JASO	FC
	FD

### **PRODUCT SELECTION**

Product availability can vary by location. Please contact your local retail Co-op for further details.

PRODUCT SIZES	SONIC <sup>®</sup> TWO-CYCLE
1 L Bottle	$\checkmark$
5 L Bottle	
10 L Bottle	
20 L Pail	
110 L Drum	
205 L Drum	
1000 L Tote	

### **MIXING TABLE**

This table shows the amount of oil that must be added to obtain the gasoline to oil ratio (1 L = 1000 mL).

GASOLINE TO OIL RATIO	5 L	10 L	15 L	20 L	25 L
16:1	300 mL	600 mL	900 mL	1.2 L	1.5 L
25:1	200 mL	400 mL	600 mL	800 mL	1.0 L
32:1	150 mL	300 mL	450 mL	600 mL	750 mL
40:1	125 mL	250 mL	375 mL	500 mL	625 mL

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