



## Renewable Lubricants, Inc.

476 Griggy Rd., P.O. Box 474  
Hartville, Ohio 44632-0474  
330.877.9982 Fax 330.877.2266  
Web: www.renewablelube.com

### Bio-SynXtra™ Compressor Fluids

ISO-15, 22, 32, 46, 68, 100, 150, 220



### *"Biobased Lubricants that Perform Like Synthetics"*

Bio-SynXtra™ Compressor Fluids are Ultimate Biodegradable<sup>2</sup>, bio-synthetic compressor lubricants. These multi-application lubricants are formulated with biobased saturated-synthetic esters to improve oxidation stability, lubricity, and anti-wear (AW) performance for longer service life in many different types of industrial equipment. They provide excellent anti-corrosion, anti-foam, and demulsibility properties. They are highly inhibited against moisture and pass both A and B Sequences of the ASTM D-665 Turbine Oil Rust Test. Their multipurpose performance helps in reducing inventory and lowering cost.

**Compressors and Vacuum Pumps:** Bio-SynXtra™ Compressor Fluids provide superior lubricating qualities for most compressors, especially portable and stationary rotary compressors (screw and sliding vane) as well as in single-stage, two-stage, and multistage reciprocating compressors (water-cooled and air-cooled), centrifugal compressors, and vacuum pumps. While specific manufacturer recommendations vary, the ISO 32, 46 and 68 grades are most commonly used for rotary compressors, while higher viscosity grades are preferred for reciprocating units (meets and exceeds DIN 51506 VDL requirements). Bio-SynXtra™ Compressor Fluids have shown exceptional anti-wear performance in ASTM D-4172 Four Ball Wear Test and because they are zinc-free, they can be used in reduction units where original equipment manufacturers (OEM) require an R&O lubricant (i.e. AFNOR NFE 48-600 HL, DIN 51524 Part 1, and Denison HF-1 fluids). They also meet the requirements for ashless GL-1, GL-2, GL-3, DIN 51517 Part 3, and AGMA Mild EP gear oils for bearings, reduction units, and gear sets. (*Use a Viscosity Sufficient for OEM Application*).

**Multi-Applications:** Hydraulic, EP Turbine oils, gear drives, gearhead motors, drip oilers, air-oilers, air-tools, water pumps, bearings, machine oil, roller chains, cables, light circulating oil, etc., and general lubrication.

**Elastomer Compatibility:** Bio-SynXtra™ Compressor Fluids are **recommended** for use with fluorocarbon (Viton), fluorosilicone, polysulfide, Teflon, Hydrogenated NBR (HNBR), and high nitrile Buna-N (>30% acrylonitrile) elastomers. Bio-SynXtra™ Compressor Fluids are **not recommended** for use where neoprene, polyacrylate, polyethylene, natural rubber, styrene-butadiene rubber (SBR, Buna S) or low Buna-N (<30% acrylonitrile) elastomer seals are used.

- Meet the Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for ENVIRONMENTALLY ACCEPTED LUBRICANTS (EALs), and should be used where LOW TOXICITY, BIODEGRADABILITY and NON-BIOACCUMULATION properties are required.
- They exceed the acute toxicity (LC-50 / EC-50 >1000 ppm) criteria adopted by the US Fish and Wildlife Service and the US EPA.
- They are ENVIRONMENTALLY RESPONSIBLE lubricants formulated from renewable agricultural biobased resources.
- Earth's environmental future rests in the use of renewable materials.

<sup>2</sup>Ultimate Biodegradation (Pw1) >60% within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricant

*Maximum oil change intervals can be obtained through proper maintenance and RLI's oil analysis program. Under good operating conditions and oil analysis program, ISO Grades 32, 46, and 68 could extend service life over 4000 hours in rotary screw compressors.*

**Benefits:**

➤ Reduced danger of fire and explosions	➤ Lower maintenance costs
➤ Outstanding oxidation and thermal stability	➤ Extended service life
➤ Low pour points	➤ Low carbon and varnish forming tendencies
➤ Excellent rust protection	➤ High viscosity index
➤ Excellent demulsibility	➤ Low toxicity
➤ Excellent antiwear properties	➤ Ultimate Biodegradable-Eco Non-Toxic



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Typical Data								
<b>ISO Grade</b>	<b>15</b>	<b>22</b>	<b>32</b>	<b>46</b>	<b>68</b>	<b>100</b>	<b>150</b>	<b>220</b>
VISCOSITIES:								
@100°C., cSt. (D-445)	3.8	4.6	5.8	7.6	10	13.9	17.8	24
@40°C., cSt. (D-445)	15.9	21.1	29.9	43.9	64	99	137	205
Viscosity Index (D-2270)	134	138	140	141	141	142	144	145
Flash Point, COC, °C (D-92)	220	225	259	290	288	290	282	286
Pour Point, °C (D-97)	-60	-57	-45	-42	-38	-36	-35	-30
Copper Corrosion 3hr @ 100°C (D-130)	1A	1A	1A	1A	1A	1A	1A	1A
Acid Number (D-974)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
4-Ball Wear, mm (D-4172)	.40-50	.40-50	.35	.34	.32	.33	.33	.33
4-Ball EP Weld Point (kg)	160	160	200	200	200	200	200	200
4-Ball EP Load Wear Index	47	47	47	50	50	50	50	50
FZG Test A/8,3/90 (DIN 51354 Part 2)	10	11	12	12	12	12	12	12
Demulsibility (D-2711)	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0	40/40/0
Foam Sequence I, II, III (D-892)	20-0	20-0	20-0	20-0	20-0	20-0	20-0	20-0
Air release (DIN51381, ASTM D 3427 (minutes)	3	3	3	2	2	4	4	5
Rust Prevention (D-665 A & B)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
TOST (ASTM-943 Dry Hrs. 2.0 NNA)	8,000+	8,000+	8,000+	8,000+	8,000+	8,000+	8,000+	8,000+
Rotary Bomb Oxidation, (minutes ASTM D-2272)	>1000	1000	1000	1000	1000	1000	1000	1000
Dielectric Strength, kV (D-877)	>40	>40	>40	>40	>40	>40	>40	>40
<b>RLI Product Item #</b>	<b>88710</b>	<b>88720</b>	<b>88730</b>	<b>88740</b>	<b>88750</b>	<b>88760</b>	<b>88770</b>	<b>88780</b>

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**Availability F.O.B.: Hartville, Ohio, USA Quart 1 Gallon 5 Gallon Pail Drum Totes Bulk**