

Product Bulletin

Product Name	STEPOSOL[®] ROE-W																																																		
Chemical Description	STEPOSOL ROE-W is a methyl ester derived from canola oil.																																																		
CAS Registry No.	67762-38-3																																																		
Chemical Name	Canola oil, methyl ester																																																		
Applications	STEPOSOL ROE-W is a naturally-derived, biodegradable solvent that can be used in a variety of household, industrial & institutional applications. STEPOSOL ROE-W can be used as an industrial solvent or co-solvent, crop oil or carrier oil in agricultural applications. It can be used a replacement or co-solvent for a variety of common industrial solvents. STEPOSOL ROE-W can be used in applications where a lower cloud point is desired.																																																		
Typical Properties	<table> <tr> <td>Appearance at 25°C.....</td><td>Clear liquid</td></tr> <tr> <td>Viscosity at 25°C, cps</td><td>10</td></tr> <tr> <td>Density at 25°C, g/ml (lbs/U.S. gal).....</td><td>0.88 (7.3)</td></tr> <tr> <td>Actives, %</td><td>>99</td></tr> <tr> <td>Color, Gardner</td><td>5 max.</td></tr> <tr> <td>Color, APHA.....</td><td>239</td></tr> <tr> <td>Saponification Value</td><td>190</td></tr> <tr> <td>Acid Value.....</td><td>1.0 max.</td></tr> <tr> <td>Iodine Value</td><td>113</td></tr> <tr> <td>Cloud Point, °C (°F)</td><td>-2.3 (27.9)</td></tr> <tr> <td>Pour Point, °C (°F)</td><td>-13.8 (7.2)</td></tr> <tr> <td>Freeze Point, °C (°F).....</td><td>-24.5 (-12.1)</td></tr> <tr> <td>Melting Point, °C (°F)</td><td>-10.9 (12.5)</td></tr> <tr> <td>Boiling Point, °C (°F).....</td><td>330 (626)</td></tr> <tr> <td>Flash Point, PMCC, °C (°F)</td><td>>94 (>201)</td></tr> <tr> <td>Refractive Index at 20°C</td><td>1.456</td></tr> <tr> <td>Surface Tension (as is), dynes/cm.....</td><td>31.4</td></tr> <tr> <td>Kauri-Butanol Value</td><td>55</td></tr> <tr> <td>VOC, CARB Method 310, %</td><td>0.6</td></tr> <tr> <td>VOC, CARB Attachment B, %</td><td>0.8</td></tr> <tr> <td>Solubility</td><td></td></tr> <tr> <td> Water</td><td>Insoluble</td></tr> <tr> <td> Methanol.....</td><td>Soluble</td></tr> <tr> <td> Kerosene</td><td>Soluble</td></tr> <tr> <td> Xylene.....</td><td>Soluble</td></tr> </table>	Appearance at 25°C.....	Clear liquid	Viscosity at 25°C, cps	10	Density at 25°C, g/ml (lbs/U.S. gal).....	0.88 (7.3)	Actives, %	>99	Color, Gardner	5 max.	Color, APHA.....	239	Saponification Value	190	Acid Value.....	1.0 max.	Iodine Value	113	Cloud Point, °C (°F)	-2.3 (27.9)	Pour Point, °C (°F)	-13.8 (7.2)	Freeze Point, °C (°F).....	-24.5 (-12.1)	Melting Point, °C (°F)	-10.9 (12.5)	Boiling Point, °C (°F).....	330 (626)	Flash Point, PMCC, °C (°F)	>94 (>201)	Refractive Index at 20°C	1.456	Surface Tension (as is), dynes/cm.....	31.4	Kauri-Butanol Value	55	VOC, CARB Method 310, %	0.6	VOC, CARB Attachment B, %	0.8	Solubility		Water	Insoluble	Methanol.....	Soluble	Kerosene	Soluble	Xylene.....	Soluble
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Biodegradability	This product is biodegradable. Additional information is available upon request.																																																		
Toxicity	STEPOSOL ROE-W has a low toxicity (oral LD ₅₀ >5000 mg/kg) and is not a skin and eye irritant.																																																		
	STEPOSOL [®] is a registered trademark of Stepan Company.																																																		



Storage & Handling

Normal safety precautions (i.e. gloves and safety goggles) should be employed when handling STEPOSOL ROE-W. Contact with eyes and prolonged contact with skin should be avoided. Wash thoroughly after handling materials. Product temperatures over 130°F (54°C) are not recommended.

Being derived from canola oil, STEPOSOL ROE-W contains polyunsaturated fatty acid methyl esters that can spontaneously combust. Oily rags, presenting a large surface area for air contact, should be washed out or stored where there can be no fire hazard.

Standard Packaging: STEPOSOL ROE-W is available in drum (net weight 375 lb/170 kg), tote or bulk quantities.

Recommended Drum Storage: STEPOSOL ROE-W should be stored in sealed containers at a temperature of 50-110°F. Storage under nitrogen will prevent degradation of the product over time.

Recommended Bulk Storage: STEPOSOL ROE-W can be stored in vessels of carbon steel; however 316 or 304 stainless steel is preferred. Tanks should be closed with venting through a gooseneck vent. STEPOSOL ROE-W should be stored between 50-110°F. External steam panel coils can be used if heating is required. Rubber hoses are not recommended for extended use. Storage under nitrogen will prevent degradation of the product over time.

Clearances

STEPOSOL ROE-W is approved for use under EPA 40 CFR 180.910, pre- and post-harvest applications.

All components of STEPOSOL ROE-W are listed in the following countries: United States (TSCA 67762-38-3), Europe (EINECS 267- 015-4), Canada (DSL 67762-38-3), Korea (ECL Serial No. KE-14358), China (IECSC 67762-38-3), Japan (ENCS Number 7-670), Philippines (PICCS 67762-38-3), and Australia (AICS 67762-38-3).

Per the California Air Resources Board's (CARB) Consumer Product Rule, OTC Model Rule and Federal VOC Standards, STEPOSOL ROE-W is exempt from VOC limit requirements because it is a LVP-VOC (low vapor pressure VOC). All regulations define an LVP-VOC as a compound or mixture which meets one of the following criteria: 1) The compound has a vapor pressure of less than 0.1 mm Hg at 20°C; 2) the compound has more than 12 carbon atoms, or a mixture comprised solely of compounds with more than 12 carbon atoms, and the vapor pressure is unknown or 3) the compound has a boiling point greater than 216°C.

Additional Safety Information

A Material Safety Data Sheet is available upon request.

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