

PRODUCT NAME: RE:CHEMISTRY SOLVE100

CAS Reg. No.: 539-88-8

INCI NAME: Ethyl Levulinate

DESCRIPTION:

- Pure Ester-based Solvent.
- 100% Biogenic Carbon according to ASTM D6866-20.
- Readily biodegradable.
- Non-flammable and Low volatile.
- Classified as Non-corrosive, Non-sensitising and Non-toxic.
- Miscible in conventional organic solvents and water.
- Ethyl Levulinate is a GRAS (Generally Recognized As Safe) rated substance by FEMA and listed as Solvent in the Safer Chemical Ingredients List of US EPA Safer Choice.

PERFORMANCE:

- Sustainable replacement for many commonly used solvents.
- Strong polymer solvency able to dissolve a broad range of polymeric binders making it an ideal carrier solvent or powerful component for resin clean-up and removal operations.
- Outstanding performance as a degreasing agent, bringing strong solvency across a broad range of organic residues.

APPLICATIONS:

- Agrochemistry
- Air care, Home care, and Industrial cleaning
- CASE

PHYSICO-CHEMICAL PROPERTIES:

PROPERTY	UNIT	RESULT
APPEARANCE	-	Clear liquid
AUTOIGNITION TEMPERATURE	°C	460 at 1002.4 mbar
BOILING POINT	°C	205.8
COLOUR	-	Colourless to pale yellow
DENSITY (20 °C)	g/ml	1.012
EVAPORATION RATE (n-BUTYL ACETATE = 1) ¹	-	< 0.01
FLASH POINT (CLOSED CUP)	°C	90
HSP (25 °C)	-	-
DISPERSION (δD)	(J/cm ³) ^{1/2}	14.60
POLAR (δP)	(J/cm ³) ^{1/2}	10.46

PROPERTY	UNIT	RESULT
HYDROGEN BONDING (δH)	(J/cm ³) ^{1/2}	6.98
MELTING POINT / FREEZING POINT	°C	< -60
MIR VALUE ²	g O ₃ /g VOC	1.07
MOLECULAR	-	-
FORMULA	-	C ₇ H ₁₂ O ₃
WEIGHT	g/mol	144.17
PARTITION COEFFICIENT / LOG P (20 °C)	-	0.324
SOLUBILITY IN WATER (20 °C)	g/l	170.7
SURFACE TENSION (20 °C)	dyn/cm	33.25
VAPOUR PRESSURE ³	-	-
20 °C	kPa	0.0117
25 °C	kPa	0.0183
VISCOSITY (DYNAMIC) (20 °C)	mPa·s	2.146
VISCOSITY (KINEMATIC) (20 °C)	mm ² /s	2.119

¹ According to ASTM D3539.

² MIR = Maximum Incremental Reactivity (calculated).

³ Calculated.

SHELF LIFE AND STORAGE: The Product has a shelf life of 730 days from the date of manufacture when stored in the original unopened containers in normal conditions.

COMPATIBILITY:

MATERIAL	COMPATIBILITY	MATERIAL	COMPATIBILITY
ABS	Red	NITRILE RUBBER	Yellow
ACRYLIC	Red	NYLON	Light Green
ADMIRALTY BRASS (CDA443)	Green	POLYETHYLENE TEREPHTALATE	Orange
ALUMINIUM (Al2024 - T3)	Green	POLYPROPYLENE	Light Green
ALUMINIUM (Al5083)	Green	POLYVINYLCHLORIDE (PVC)	Red
ALUMINIUM (Al7075 - T6)	Green	PVA	Red
BUTYL RUBBER	Yellow	PVDF	Orange
CHLORINATED PVC	Red	SAN GRADE 1	Red
CLAD ALUMINIUM (Al2024 - T3)	Green	SAN GRADE 2	Red
CLAD ALUMINIUM (Al7075 - T6)	Green	SAN GRADE 3	Red
COPPER (CDA110)	Orange	SBR	Yellow
EPDM	Yellow	SILICONE	Yellow
GALVANIZED MILD STEEL (C1010)	Green	STAINLESS STEEL (304L)	Light Green
GALVANIZED STEEL (G90)	Green	STAINLESS STEEL (316L)	Light Green
HIGH DENSITY POLYETHYLENE	Green	TEFLON	Yellow
LDPE	Yellow	TYGON	Yellow
NEOPRENE	Yellow	VITON	Red

Low (red / orange) to medium (yellow) and high compatibility (light / dark green).