

AMOLEA™ AS-300AT



AMOLEA™ AS-300AT is a next generation HCFO blend solvent developed by AGC. AS-300AT is an azeotrope containing AMOLEA™ AS-300 and trans-1,2-DCE and has excellent solvency (Kb value 118).

Typical Applications

- Degreasing (cutting oils, press oils, silicone oils), greases, waxes, asphalt pitches
- Defluxing of printed wiring assemblies
- Carrier solvent for silicone oils, fluorinated greases, and others
- Replacement for nPB, TCE, PCE, DCM, 3M™ Novec™, Chemours Vertrel™, Honeywell Solstice® PF

Benefits

- Non-flammable
- Very low global warming potential (GWP)
- Zero ozone depletion potential (ODP)
- Excellent solvency for processing oils
- Thermally stable
- No additional stabilizers or surfactants required
- Can be used with ultrasonics
- High AEL (Acceptable Exposure Limit) 200ppm
- Recoverable by simple distillation
- Optimum boiling point (47°C) to use in cleaning application
- Excellent solvency (Kb value 118), comparable with nPB, TCE, DCM

Physical Properties

Property	AMOLEA AS-300AT
Boiling Point	47 °C (132.8 °F)
Density (g/cm ³ , 25 °C)	1.28
Relative Evaporation Rate (Ether=100)	261
Flash Point (Open/Closed cup)	None
KB Value	118

Solvency for Oils

Type of Oil	AMOLEA AS-300AT
Cutting Oil	50%
Tool Oil	50%
Quenching Oil	50%
Rolling Oil	50%
Anti-rust Oil	50%
Silicone Oil	50%

Environmental Properties

Property	AMOLEA AS-300AT
Global Warming Potential (GWP), CO ₂ = 1.0, 100yr ITH	<1
Acceptable Exposure Limit (AEL) 8h-TWA, [ppm]	200 (Set by AGC, Inc.)

Environmental Health and Safety

Please read the Safety Data Sheet available through your AGCCA technical service representative and the precautionary statement on the product package prior to use. Follow all applicable precautions and directions.

AMOLEA AS-300AT is nonflammable. The solvent is resistant to thermal breakdown and hydrolysis during storage and use. Recommended handling procedures are provided in the Safety Data Sheet, which is available from your AGCCA representative upon request.



Typical Applications

AMOLEA AS-300AT is compatible with common metals, for example, steel (SSPC- SB), stainless steel (SS- 304), magnesium, aluminum, copper, and brass. AMOLEA AS-300AT is compatible with many common materials under typical cleaning conditions. However, certain plastics and elastomers are affected by AMOLEA AS-300AT. It is recommended that material compatibility be tested prior to use. Table below is the effect on plastics and elastomers of AMOLEA AS-300AT, respectively. Test coupons were immersed into AMOLEA AS-300AT for five minutes and three days at boiling point.

Material Compatibility for Plastics

Material	At boiling for 5min			At boiling for 3 days		
	Weight Change (%)	Linear Swell (%)	Extractables (%)	Weight Change (%)	Linear Swell (%)	Extractables (%)
Polyvinyl chloride (rigid)	9.2	0.5	0.5	99.9	19.0	6.6
Polyvinyl chloride (plasticized)	27.2	3.3	2.6	31.7	2.8	33.3
Polyethylene (HP)	0.8	0.2	0.2	11.2	3.0	0.2
Polyethylene (LP)	4.9	0.2	0.9	33.6	8.2	0.9
Polypropylene	1.0	<0.1	0.1	19.4	4.4	0.7
Polystyrene	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
Acrylic	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
Polycarbonate	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
ABS	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved
PTFE	<0.1	0.1	<0.1	1.4	10.3	<0.1
Epoxy (FR)	0.5	<0.1	<0.1	9.6	<0.1	<0.1
Nylon6	-0.2	-0.2	<0.1	0.2	<0.1	<0.1
Nylon66	<0.1	0.3	<0.1	0.3	0.1	<0.1
Polyethylene telephtarate	1.1	0.2	0.4	16.6	4.1	0.1
Polyphenylene sulfide	0.5	<0.1	<0.1	1.0	<0.1	<0.1

Material Compatibility for Elastomers

Material	At boiling for 5min			At boiling for 3 days		
	Weight Change (%)	Linear Swell (%)	Extractables (%)	Weight Change (%)	Linear Swell (%)	Extractables (%)
Natural rubber	23.9	5.9	2.7	97.8	25.3	12.5
Urethane rubber	30.2	4.9	0.1	196.0	37.5	0.6
Isobutylene isoprene rubber	22.9	3.9	2.7	99.5	19.6	13.9
Polychloroprene	26.8	5.6	2.4	131.4	28.1	10.6
Fluoroelastomer	6.4	1.7	0.3	42.2	14.8	3.3
Chlorosulfonated polyethylene	22.5	4.3	2.1	125.3	26.6	13.3
Silicone rubber	30.2	4.9	0.1	205.2	20.2	2.3
Ethylene propylene diene terpolymer (EPDM)	144.5	27.5	12.3	144.5	27.5	12.3



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