

ASTROBIO™ AP

Bio solvent blend, safe cleaner for resins and polymers Technical Data Sheet

Product name: ASTROBIO™ AP
Manufacturer: Liberty Chemicals s.r.l. (Italy)
Contact: info@astrobiosolvent.com

Area of Use:

Sustainable and safer bio-solvent. ASTROBIO™ AP is a reliable alternative to fossil based solvents in many industrial applications. It's very effective as cleaner in industrial settings to remove different kinds of resins, polymers, residues and soils. It has a great solvency power for acrylics, polyesters (saturated and unsaturated), epoxies, vinylics, phenolics, isocyanates, melamines, MDI and furan resins. It's used for cold cleaning operations after polymerization in polymer synthesis reactors. ASTROBIO™ AP is also used as a very low VOC solvent in leather refinishing and to formulate bio-based and sustainable paint strippers. It's also a great choice to formulate safer and industrial and household detergents. If needed, ASTROBIO™ AP evaporation rate can be increased when properly blended with ASTROBIO™ K80.

Technical Benefits:

- Very effective as cleaner and in degreaser in industrial settings.
- Outstanding cleaning properties in formulation of industrial and household detergents.
- **Reduced evaporation losses: stays on the job longer than other fossil based solvents.**
- Easy and inexpensive to distill or recycle.
- **Strong solvency power for different resins, polymers grade and soils.**
- **Custom blend available for maximum performances.**
- High loading capacity.

Available Packaging:

Drums	IBC	Bulk
236Kg	1180Kg	≥ 10MT
net weight	net weight	net weight



Key Features:

Bio-based solvent according to EN 16575

Flashpoint	85° C	EN 3679
RER (BuOAc=1)	0,001	Calculated
Vap. pressure (20°C)	0,05 kPa	Calculated
Boiling range	151° - 242° C	-

Solvency power:

HSP's	δd	δp	δh	δt	Calculated
	19,62	16,67	4,96	26,54	

Environmental Benefits:

- Readily biodegradable raw materials.
- Slow Climate change: carbon neutral balance.
- Sustainable chemistry: renewable raw materials.
- No ozone depleting chemicals (ODC).
- No environmental hazardous ingredients.
- No hazardous air pollutants.

Health Benefits:

- Aromatics, ketones, paraffins, alogens and terpenics FREE.
- Non flammable, not labelled, not classified (GHS and CLP)
- **Safe, non toxic, non carcinogenic.**

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Guaranteed Specifications

Properties	Standard	ASTROBIO™ AP	Units
Appearance	Visual	Clear colourless liquid	-
Colour	ASTRO001 ¹	30	Pt-Co (APHA), Max
Specific gravity (20°C)	ASTRO002 ¹	1,15 – 1,21	g/mL
Moisture	ASTRO003 ¹	0,3	% in weight, max

Technical Performances and properties

Properties	Standard	ASTROBIO™ AP				Units
Chemical composition	-	Blend of organic acids esters ²				-
Solvency power: HSP's	Calculated	δd	δp	δh	δt	Mpa ^{1/2}
		19,62	16,67	4,96	26,54	
Boiling range	-	151 - 242				°C
Flashpoint	EN 3679	85				°C
Evaporation rate	Calculated	0,001				RER (BuOAc=1)
Vapor pressure (20° C)	Calculated	0,05				kPa
Dynamic Viscosity (25° C)	ASTRO004 ¹	≈ 1,70				mPa.s

Environmental characteristics and Biodegradability

Properties	Standard/Reference	ASTROBIO™ AP	Units
Ready Biodegradability ³	OECD 301 series	> 85	% w/w in 10 days window
Ultimate biodegradability ⁴	-	100	% w/w at 67 days
Water hazard	WGK Germany	1	Class
VOC content	Directive 2010/75/UE and Swiss Regulation (814.018)	10	% w/w
	Directive 2004/42/CE	100	% w/w

This product has to be subjected from any industrial or professional user to careful tests, in order to evaluate his effectiveness for expected applications. Our company waives any responsibility in case of any improper usage of this product.

Manufactured in Italy (European Union).
ASTROBIO™ is a trade mark of Liberty Chemicals s.r.l.
 (Italy)

Issued by: ASTROBIO™ division | Liberty Chemicals s.r.l. (Italy).

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Footnotes:

1. Analysis conducted according to an internal standard protocol.
2. All ingredient are REACH registered.
3. Product has not been tested itself to access ready biodegradability, but all raw materials used during manufacture are classified as readily biodegradable according to one or several of the following OECD guidelines: OECD 301 A, B, C, D, E, F.
4. Product has not been tested itself to access ultimate biodegradability, but all raw materials used during manufacture are completely (100%) biodegradable in 67 days or less.