Revision n. 3, issued on 08th April 2021

ASTROBIO™ XT

Bio-Solvents Blend, replacement for toluene/xylene

Technical Data Sheet

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



Area of Use:

Sustainable Replacement for toluene/xylene in many industrial applications. It can be used to formulate coatings, laquers, paints, varniches and inks based on, acrylics, vinylics, melamines and polyesters resins. **It has a great solvency power for** nitrocellulose, wood rosins and different kind of **chlorinted polymers** as well. It's very effectives as cleaner in industrial settings to remove different kinds of residues and soils. ASTROBIO™ XT is also successfully used to formulate intumescent paints, as a sustainable replacement for xylene in coil coatings industry and to manufactued leather or artificial leather paints in the automotive industry.

Technical Benefits:

- 20% -30% more efficient in reducing viscosity than xylene/toluene.
- Dries completely and leaves no residue.
- Easy and inexpensive to distill or recycle.
- **Enhanced cleaning power and reduced solvent usage compared to xylene/toluene**.
- **Custom blend available for maximum performances.**
- Excellent flow characteristics when in formulation.
- High loading capacity.
- Reduced evaporation losses: stays on the job longer than xylene/toluene.

Available Packaging:

Drums	IBC	Bulk
178Kg	890Kg	≥ 10MT
net weight	net weight	net weight

Key Features:

Bio-based solvent according to EN 16575		
Flashpoint	20° C	EN 3679
RER (BuOAc=1)	0,60	Calculated
Vap. pressure (20°C)	3,24 kPa	Calculated
Boiling Range	78°- 154°C	-

Solvency power:

HSP's	δd	δp	δh	δt	Calculated
	16,01	5,55	10,48	20,37	

Environmental Benefits:

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

Health Benefits:

- Chlorine, Halogens, Ketons, Aromatic and paraffins free.
- Safer than xylene/toluene due to its hazard statements, GHS and CLP classification.

LIBERTY CHEMICALS s.r.l.
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Codice Fiscale/P. IVA 02253660126 - R.E.A. Varese 241902 - Reg. Imp. 02253660126 - Capitale Sociale € 10.920,00 int. vers.

Guaranteed Specifications

Properties	Standard	ASTROBIO™ XT	Units
Appearence	Visual	Clear colourless liquid	
Colour	ASTRO001[1]	20	Pt-Co (APHA), Max
Specific gravity (20°C)	ASTRO002[1]	0,86 – 0,92	g/mL
Moisture	ASTRO003[1]	0,2	% in weight, max

Technical Performances and properties

Properties	Standard	ASTROBIO™ XT				Units
Chemical composition	-	Blend of organic acids esters[2]				-
Solvency power: HSP's	Calculated	δd	δp	δh	δt	Mpa$^{1/2}$
		16,01	5,55	10,48	20,37	
Boiling range	-	78 - 154				°C
Flashpoint	EN 3679	20				°C
Evaporation rate	Calculated	0,60				RER (BuOAc=1)
Vapor pressure (20° C)	Calculated	3,24				kPa
Dynamic Viscosity (25° C)	ASTRO004[1]	≈ 1,10				mPa.s

Environmental characteristics and Biodegradabilty

Properties	Standard/Reference	ASTROBIO™ XT	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)	100	% 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 (Europen Union).
ASTROBIO™ is a trade mark of Liberty Chemicals s.r.l. (Italy)

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

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.