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ASTROBIO™ BC

Bio-Solvents Blend, replacement for butyl glycol

Technical Data Sheet

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

Area of Use:

Safer and Sustainable Replacement for butyl glycol in many industrial applications. It can be used in formulation of coatings, laquers, paints, varniches and inks based, among others, on acrylics, vinylics, rosins and melamines resins. **It's a great coalescing agent for water based paints** particularly in decorative sector thanks to its faint and pleasant smell (interior, exterior wall and floor paints). ASTROBIO™ BC can efficiently replace butyl glycol in textile, leather, automotive, detergency, pesticide formulation, wood coatings and printing industry, but it's a **perfect match to formulate safer industrial, professional and household cleaners**.

Technical Benefits:

- Exceptional performance as a cleaning solvent blend for formulations.
- 20% -30% more efficient in reducing viscosity than butyl glycol.
- Dries completely and leaves no residue.
- Easy and inexpensive to distill or recycle.
- **Faint and pleasant odor ideal as a solvent or coalescing agent in decorative sector.**
- **Custom blend available for maximum performances.**
- Excellent flow characteristics when in formulation.
- High loading capacity.

Available Packaging:

Drums	IBC	Bulk
188Kg	940Kg	≥ 10MT
net weight	net weight	net weight

Key Features:

Bio-based solvent according to EN 16575		
Flashpoint	73° C	EN 3679
RER (BuOAc=1)	0,02	Calculated
Vap. pressure (20°C)	0,26 kPa	Calculated
Boiling Range	154°- 270°C	-

Solvency power:

HSP's	δd	δp	δh	δt	Calculated
	15,66	5,36	10,87	19,48	

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 butyl glycol** 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™ BC	Units
Appearence	Visual	Clear colourless to yellowish liquid	-
Colour	ASTRO001[1]	80	Pt-Co (APHA), Max
Specific gravity (20°C)	ASTRO002[1]	0,91 – 0,97	g/mL
Moisture	ASTRO003[1]	0,2	% in weight, max

Technical Performances and properties

Properties	Standard	ASTROBIO™ BC				Units
Chemical composition	-	Blend of organic acids esters and glycols[2]				-
Solvency power: HSP's	Calculated	δd	δp	δh	δt	Mpa$^{1/2}$
		15,66	5,36	10,87	19,48	
Boiling range	-	154 - 270				°C
Flashpoint	EN 3679	73				°C
Evaporation rate	Calculated	0,02				RER (BuOAc=1)
Vapor pressure (20° C)	Calculated	0,26				kPa
Dynamic Viscosity (25° C)	ASTRO004[1]	≈ 3,74				mPa.s

Environmental characteristics and Biodegradabilty

Properties	Standard/Reference	ASTROBIO™ BC	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)	73,3	% w/w
	Directive 2004/42/CE	73,3	% 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.