

# ASTROBIO™ AP 3

## Bio solvent blend, ideal cleaner for resins and polymers

### Technical Data Sheet

**Product name:** ASTROBIO™ AP 3  
**Manufacturer:** Liberty Chemicals s.r.l. (Italy)  
**Contact:** [info@astrobiosolvent.com](mailto:info@astrobiosolvent.com)

#### Area of Use:

**Sustainable and safer bio-solvent.** ASTROBIO™ AP 3 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, epoxies, vinyls, phenolics, polyurethanes, melamines, MDI and furan resins. It's used for cold degreasing operations after polymerization in polymer synthesis reactors. ASTROBIO™ AP 3 is also used as a zero VOC solvent in leather refinishing and to formulate bio-based and sustainable paint strippers. It's also a great choice to formulate safer, industrial and household detergents. If needed, ASTROBIO™ AP 3 evaporation rate can be increased when properly blended with ASTROBIO™ K80.

#### Technical Benefits:

- Very effective as cleaner and 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       |
|------------|------------|------------|
| 234Kg      | 1170Kg     | ≥ 10MT     |
| net weight | net weight | net weight |



#### Key Features:

##### Bio-based solvent according to EN 16575

|                      |               |            |
|----------------------|---------------|------------|
| Flashpoint           | 105° C        | EN 3679    |
| RER (BuOAc=1)        | 0,001         | Calculated |
| Vap. pressure (20°C) | 0,004 kPa     | Calculated |
| Boiling range        | 242° - 246° C | -          |

#### Solvency power:

| HSP's | δd    | δp    | δh   | δt    | Calculated |
|-------|-------|-------|------|-------|------------|
|       | 19,46 | 16,52 | 5,10 | 26,40 |            |

#### 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, classified just as irritant (GHS and CLP).
- **Safe, non toxic, non carcinogenic.**

#### LIBERTY CHEMICALS s.r.l.

### Guaranteed Specifications

| Properties              | Standard              | ASTROBIO™ AP 3          | Units             |
|-------------------------|-----------------------|-------------------------|-------------------|
| Appearance              | Visual                | Clear colourless liquid | -                 |
| Colour                  | ASTRO001 <sup>1</sup> | 30                      | Pt-Co (APHA), Max |
| Specific gravity (20°C) | ASTRO002 <sup>1</sup> | 1,14 – 1,20             | g/mL              |
| Moisture                | ASTRO003 <sup>1</sup> | 0,3                     | % in weight, max  |

### Technical Performances and properties

| Properties                | Standard              | ASTROBIO™ AP 3                             |       |      |       | Units              |
|---------------------------|-----------------------|--|-------|------|-------|--------------------|
| Chemical composition      | -                     | Blend of organic acids esters <sup>2</sup> |       |      |       | -                  |
| Solvency power: HSP's     | Calculated            | δd   | δp    | δh   | δt    | Mpa <sup>1/2</sup> |
|                           |                       | 19,46                                      | 16,52 | 5,10 | 26,40 |                    |
| Boiling range             | -                     | 242 - 246                                  |       |      |       | °C                 |
| Flashpoint                | EN 3679               | 105  |       |      |       | °C                 |
| Evaporation rate          | Calculated            | 0,001                                      |       |      |       | RER (BuOAc=1)      |
| Vapor pressure (20° C)    | Calculated            | 0,004                                      |       |      |       | kPa                |
| Dynamic Viscosity (25° C) | ASTRO004 <sup>1</sup> | ≈ 1,95                                     |       |      |       | mPa.s              |

### Environmental characteristics and Biodegradability

| Properties                             | Standard/Reference                                  | ASTROBIO™ AP 3 | Units                   |
|--|---|----------------|-------------------------|
| Ready Biodegradability <sup>3</sup>    | OECD 301 series                                     | > 85           | % w/w in 10 days window |
| Ultimate biodegradability <sup>4</sup> | -   | 100            | % w/w at 67 days        |
| Water hazard                           | WGK Germany   | 1              | Class                   |
| VOC content                            | Directive 2010/75/UE and Swiss Regulation (814.018) | 0              | % 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).

### LIBERTY CHEMICALS s.r.l.

**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.