# ASTROBIO™ SR

## Bio solvent blend, replacement of dearomatized paraffins D60

## Technical Data Sheet

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




### Area of Use:

**Bio-Sustainable replacement of dearomatized paraffins (D60), hydrocarbons solvents, kerosene or white spirits,** in many industrial applications. It has a great solvency power for epoxies, alkydics, acrylics, polyesters, melamines and vinylics resins. It's used to formulate coatings, adhesives, paints and inks based on those resins as well. **It's used in car bodywork, marine paints, metal forniture paints and in decorative coatings**. It's used as cleaner in industrial settings to remove different kinds of residues and soils and it's suitable for cold deagreasing procedures (e.g. in sythesis reactors). ASTROBIO™ SR is also a great choice for formulating bio-based and sustainble paint strippers, PU cleaners, machinery and industrial detergents.

### Technical Benefits:

- 20% -30% more efficient in reducing viscosity than other fossil based solvents.
- Reduced evaporation losses: stays on the job longer.
- **Dries completely and leaves no residue.**
- Easy and inexpensive to distill or recycle.
- **Strong solvency power for different resins, polymers grade and soils.**
- **Custom blend available for maximum performances.**
- Excellent flow characteristics in formulation.
- High loading capacity.

### Available Packaging:

| Drums | IBC | Bulk |
|---|---|---|
| 198Kg | 990Kg | ≥ 10MT |
| net weight | net weight | net weight |

### Key Features:

| Bio-based solvent according to EN 16575 | | |
|---|---|---|
| Flashpoint | 62° C | EN 3679 |
| RER (BuOAc=1) | 0,14 | Calculated |
| Vap. pressure (20°C) | 0,38 kPa | Calculated |
| Boiling range | 151° - 187° C | - |

### Solvency power:

| HSP's | δd | δp | δh | δt | Calculated |
|---|---|---|---|---|---|
| | 16,00 | 4,00 | 10,00 | 20,00 | |

### 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.
- **Safer than D60** due to it's hazard statements, GHS and CLP classification.
- **Non flammable.**

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## Guaranteed Specifications

| Properties | Standard | ASTROBIO™ SR | Units |
|---|---|---|---|
| Appearence | Visual | Clear colourless liquid | - |
| Colour | ASTRO001[1] | 30 | Pt-Co (APHA), Max |
| Specific gravity (20°C) | ASTRO002[1] | 0,96 – 1,02 | g/mL |
| Moisture | ASTRO003[1] | 0,3 | % in weight, max |

## Technical Performances and properties

| Properties | Standard | ASTROBIO™ SR | | | | Units |
|---|---|---|---|---|---|---|
| Chemical composition | - | Blend of organic acids esters[2] | | | | - |
| Solvency power: HSP's | Calculated | δd | δp | δh | δt | Mpa$^{1/2}$ |
| | | 16,00 | 4,00 | 10,00 | 20,00 | |
| Boiling range | - | 151 - 187 | | | | °C |
| Flashpoint | EN 3679 | 62 | | | | °C |
| Evaporation rate | Calculated | 0,14 | | | | RER (BuOAc=1) |
| Vapor pressure (20° C) | Calculated | 0,38 | | | | kPa |
| Dynamic Viscosity (25° C) | ASTRO004[1] | ≈ 1,90 | | | | mPa.s |

## Environmental characteristics and Biodegradabilty

| Properties | Standard/Reference | ASTROBIO™ SR | 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.