

150

150 years of helping the world *thrive*

ABOUT US

Cargill provides food, agriculture, financial and industrial products and services to the world. Together with farmers, customers, governments and communities, we help people *thrive* by applying our insights and nearly 150 years of experience. We have 143,000 employees in 67 countries who are committed to feeding the world in a responsible way, reducing environmental impact and improving the communities where we live and work.

thrive™

Agri-pure™
biosolvent

FUNCTIONAL FLUIDS

Agri-pure™ biosolvent Play it safe

Agri-pure™ AP-406 is a light-colored, vegetable-based fluid with excellent cleaning, thinning and solvent properties.

It offers an alternative to light mineral oils and other petroleum-derived solvents, providing good technical performance as well as other important benefits:

HUMAN HEALTH

Agri-pure™ AP-406 is classified as non-toxic in accordance with EC 1272/08. This is especially important in uses such as cleaning / degreasing formulations, mold release agents and products used in the external environment, where human contact may occur (either intentional or not).

SAFETY IN USE

The emission of volatile organic compounds (VOCs) is harmful to people, vegetation, forests and crops as well as contributing to greenhouse gases. Agri-pure™ AP-406 is classified as a non-VOC solvent in accordance with EC directive 1999/13/EC. The high flashpoint and boiling point of Agri-pure™ AP-406 greatly assist in the safe handling and storage of the product with respect to fire and explosion control.

SUSTAINABILITY

Agri-pure™ AP-406 is based on vegetable oil of European origin, refined from sustainably cultivated oilseed crops.

BIODEGRADABILITY

Agri-pure™ AP-406 is readily biodegradable, and has the lowest water hazard rating WGK 1 (Wassergefährdungsklassen, German Water

Hazard Classification). This makes it ideally suited to outdoor and environmental loss applications, where the fate of the solvent must be carefully considered.

Agri-pure™ AP-406 biosolvent (additionally) finds uses in plastics additives, consumer ignition products, coatings, defoamers and chemicals, to name but a few. Many products and processes that use paraffinic oils, white spirit, chlorinated hydrocarbons, D-Limonene and light alcohols can consider to switch (partially or completely) to Agri-pure™ AP-406, and experience the benefits of a safer and greener alternative.

MORE INFORMATION

If you have questions about Agri-pure™ AP-406 biosolvent, would like to receive a sample, or would like to discuss other products on our range, do not hesitate to contact us using the information request form or our dedicated e-mail address biosolvents@cargill.com.

Agri-pure™ AP-406 is an effective thinner for vegetable oils, allowing for a wide range of operating viscosities

Recommended applications



PRINTING INKS

The high solvency power and light color of Agri-pure™ AP-406 is used to advantage in the formulation of solvent-based offset (sheet-fed) inks – including clear, white and pale inks. Compared to petroleum distillates, Agri-pure™ AP-406 gives comparable rheological properties and printability. Agri-pure™ AP-406 is on the EuPIA approved list for food packaging inks.

CLEANERS & DEGREASERS

The trend to safe and renewable bio-based cleaners and degreasers continues apace, and Agri-pure™ AP-406 plays a role in providing the solvency and fluid properties needed to reformulate from traditional mineral oil-based cleaners. Established applications include industrial degreasing, oil refinery CIP, removal of concrete stains, graffiti, varnish, adhesives, and hand cleaners.

LUBRICANTS

The fluid properties of Agri-pure™ AP-406 resemble light mineral oils, but with added environmental and human health advantages. These, along with specific application benefits, are put to use in the formulation of metal-working fluids, mold-release agents and textile lubricants. It can also be in the production of sulphurised EP additives, and as a carrier fluid / compatibiliser for additive packages.

CROP PROTECTION

Agri-pure™ AP-406 has an established and proven performance as an oil adjuvant, improving rain-fastness, softening waxy leaf cuticles and enhancing the activity of specific herbicides at low dosage. [Adjuvants are functional carrier fluids used to deliver and enhance the performance of active ingredients].

AGRI-PURE™ AP-406 BIOSOLVENT

PRODUCT CHARACTERISTICS

Composition	Vegetable ester, free of additives such as pour point depressants, foam inhibitors and antioxidants	Reference method
Appearance	Light yellow, liquid, clear, free of foreign material	Visual test

Property	Unit	Typical value	Reference method
Color	Gardner	2	ASTM D 1544
Kin. viscosity at 40° C	mm²/s	4.4	EN ISO 3104
Water content	mg/kg	180	EN-ISO 12937:1999
Acid value	mgKOH/g	0.1	EN 14104
Iodine value	g/100g	112	EN 14214 Appendix B
Flash point	°C	155	ISO/CD 3679
Pour Point	°C	-12	ISO 3016
Ester content	%	99	DIN EN 14103:2003
Density at 15° C	g/l	883	DIN EN ISO 12185
Kauri Butanol	-	52	ASTM D1133
Viscosity Index	-	210	Calculated
Solubility at 20° C			
Water	% m/m	Insoluble	