



GREENFLUX

Purity and
performance:
the winning combination
for **bitumen fluxes**



TotalEnergies

  specialfluids.totalenergies.com



GREENFLUX : an exceptional range

A range of fluxes specifically developed to reduce bitumen viscosity.

RECOGNIZED TECHNICAL PERFORMANCE:

- ✓ facilitates the emulsification and fluxing of pure bitumen,
- ✓ improves binder yields,
- ✓ guarantees better holding to enable an early return of traffic,
- ✓ shows increased resistance to stripping due to its excellent level of adhesiveness,
- ✓ exceptional water resistance, handling and durability.

Applications for bitumen

SURFACE DRESSING

COLD MIX ASPHALT

COLD POUR ASPHALT

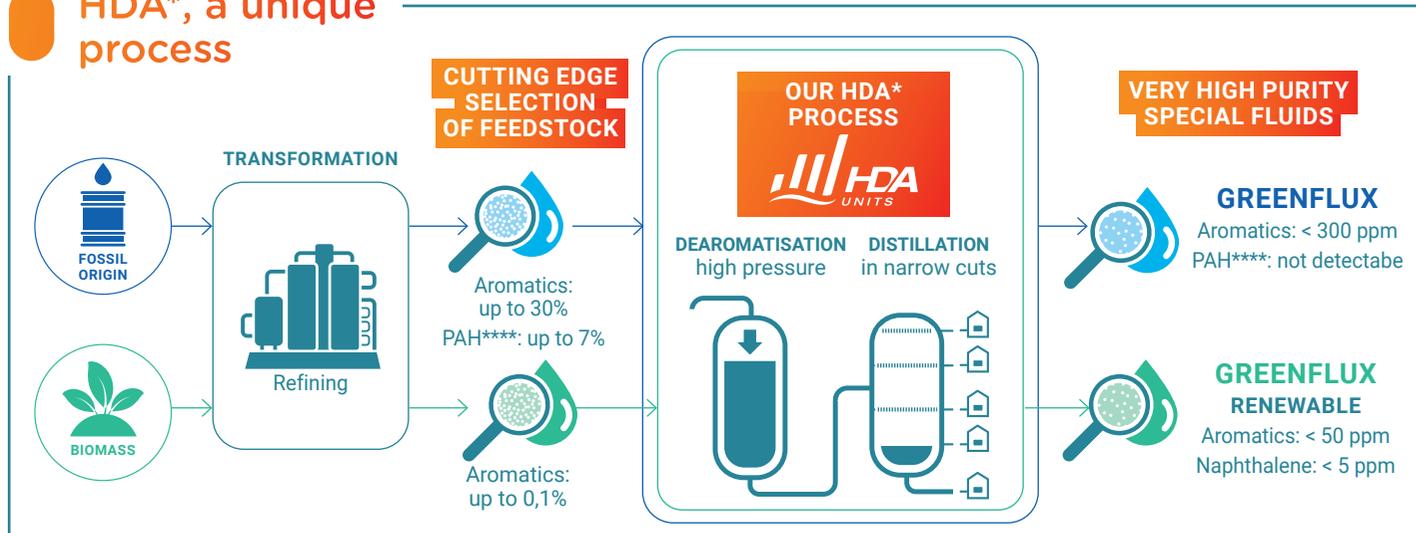
STORABLE COLD ASPHALT

Fluids of very high purity

Due to our unique hydrogenation and high-pressure distillation (HDA*) technique, we can offer the purest dearomatized fluxes on the market while meeting the most stringent requirements:

- ▶ Substances not classified as CMR**, in accordance with regulation GHS/CLP (CE) 1272/2008
- ▶ Very low BTEX*** content (<1 mg/kg)
- ▶ Very low PAH**** content (<1 mg/kg), well below the limit of <1 mg/kg for each
- ▶ Made from substances classified as being readily biodegradable (OECD 301B)
- ▶ Responds to exposure limit values
- ▶ Toxicology compliant with industry requirements

HDA*, a unique process



*HDA: HydroDeAromatisation / **CMR: Carcinogenic, Mutagenic, Reprotoxic / ***BTEX: Benzene, Toluene, Ethylbenzene, Xylene / ****PAH: Polycyclic Aromatic Hydrocarbons

The Special Fluids division of TotalEnergies: A global network with a local touch

A RECOGNISED GLOBAL LEADER

HEALTH AND SAFETY ARE THE CORNERSTONES OF OUR PROCESSES



Storage facilities **WORLDWIDE**



MULTI-SKILLED TEAMS of passionate, seasoned specialists

A WIDE SELECTION OF PRODUCTS FOR VARIOUS INDUSTRIAL APPLICATIONS



PLANTS in France and the US



3 LEADING-EDGE R&D CENTRES two in France, one in Belgium, and a technical centre in India



A solution that complies with the strictest EHS standards

Beyond its very high purity, the **GREENFLUX range complies with the recommendations and safety directives from SETRA** (road and highway technical studies department, May 2011) for risk-free use.

“ We have now been working with **GREENFLUX SD** for more than 10 years. The factors behind this choice are technical in nature. **GREENFLUX SD** is perfectly suited to our applications. It is easy-to-use, and the bitumen can be applied quickly. Today, thanks to **TotalEnergies'** logistics arrangements, we can manage our projects in their entirety. With its HDA process, **TotalEnergies Fluids** supplies an aroma-free binder that is safe for our operators to use. This was a crucial factor in our choice – compliance with **HSEQ standards is a priority at EUROVIA.** ”

Philippe Astier, head of the LNE (North-East Binders) sector, Eurovia

A responsible offer

As part of our commitment to sustainable development, we have developed an ISCC PLUS certified responsible offer which ensures you are using products that contribute to the reduction of your carbon footprint.

To find out more, go to:
<https://specialfluids.totalenergies.com/en/iscc-plus-certificate>.



Set up by the European Union, ISCC is a certification body that ensures compliance with environmental criteria, labor law, etc. It ensures traceability of raw materials throughout the supply chain.

Your operators can use our range in complete safety.



GREENFLUX: Don't compromise between safety and performance

» UNIQUE PROPERTIES THAT REDUCE YOUR EHS IMPACT

- ✓ Low aromatics content
- ✓ Not carcinogenic, mutagenic or toxic to reproduction (CMR)
- ✓ Odorless
- ✓ Biodegradable
- ✓ Reduce carbon footprint through our responsible offer

» A HIGH-PERFORMANCE EASY-TO-USE RANGE

- ✓ Allows an early return of traffic
- ✓ Improved resistance to low temperatures and bad weather conditions
- ✓ Improved resistance to aging of the coating



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