Solaires™

Innovative Solar Technology

Innovating photovoltaic solutions for a cleaner world

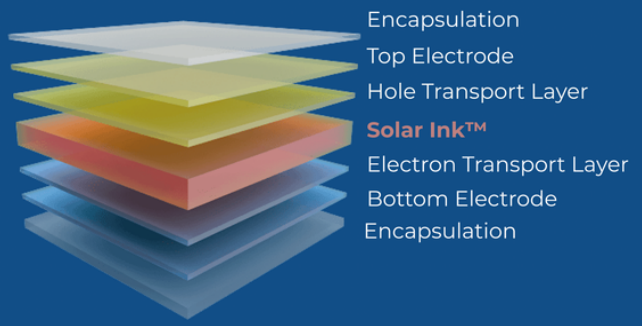
www.solaires.net

Evolving Solar Ink™

Building on the success of our original formulation of Solar Ink™, we are excited to introduce **Solar Ink™ Evolved!** This improved formulation uses low-impact solvents, offering an answer to two common requests from Solar Ink™ One. Our new ink uses environmentally friendly solvents, and is compatible with more scalable coating methods.

The primary applications of Solar Ink™ are in perovskite photovoltaic devices.
Solar Ink™ deposition has been optimized as a multistep process, which includes coating in ambient conditions, solvent removal with an antisolvent and hot-plate heating to complete crystallization.

Solar Ink™ requires the careful integration of multiple layers to function effectively. The schematic below presents a traditional solar cell architecture, enabled by Solar Ink™.



Historically, perovskite inks are especially sensitive to humidity, but our inks can be stored and used in ambient conditions. Together, we can innovate photovoltaic solutions for a cleaner world.

Applications

- Primary Market – Thin Film Solar Cell Manufacturers
- Secondary Market – Flexible and Rigid Display Manufacturers
- Tertiary Market – IoT, Wearables, and Sensors

- Compatible with **flexible and rigid substrates.**
- **Excellent uniformity** of coating on substrates.
- Solvent composition compatible with inkjet printheads.

Manufacturing

- Our Inks are developed and manufactured in British Columbia, Canada.
- Our Inks are produced with only the highest quality chemicals sourced from reputable suppliers.
- Each batch of Solar Ink is rigorously tested for quality prior to release.

Solar Ink™ Evolved

Our Low Impact Formulation

Specifications*

Perovskite Type
Mixed-halide, mixed cation

Precursor Materials
Formamidinium iodide, Lead iodide, Methylammonium Bromide, Lead Bromide, Methylammonium Chloride

Solvents
GBL, 1-PrOH, AcOH

Optical Band Gap
1.4-1.6 eV

Device Efficiency
~16 % (architecture and size dependent)

Processing Conditions
ambient conditions; anti-solvent treatment; annealed at 150 °C

Properties*

Appearance
Yellow liquid

Shelf Life at 20-25 °C
~30 days

Density at 25 °C
~1.6 g cm $^{-3}$

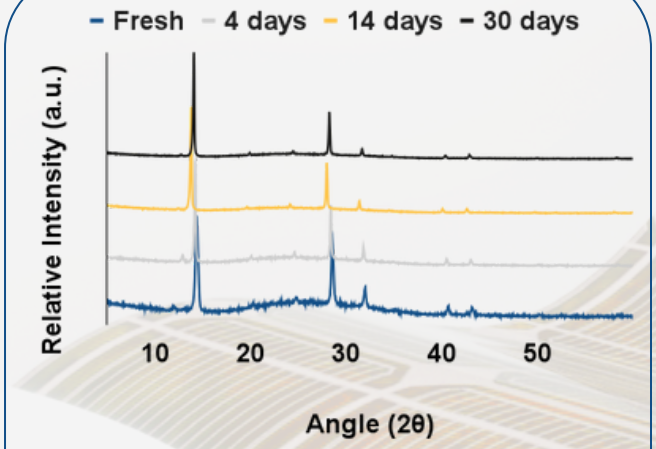
Viscosity at 25 °C
~7 cP

Packaging Sizes

We offer sizes of
10 mL, 25 mL, 50 mL, 100 mL

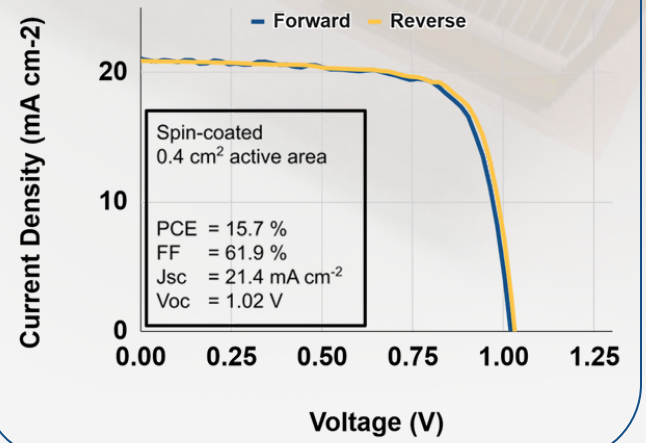
*when handled as instructed

Solar Ink™ Evolved



Long Shelf Life

High Performance



Get in Touch

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About Solaires

Solaires Entreprises Inc. is a Canadian cleantech company located in Victoria, BC, that consists of a team of scientists, engineers, and business professionals.

Solaires is a company with a single mission: enable the future of solar technology through perovskites. We are proud to enter the next-generation of solar power with our line of perovskite inks, Solar Ink™.

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