

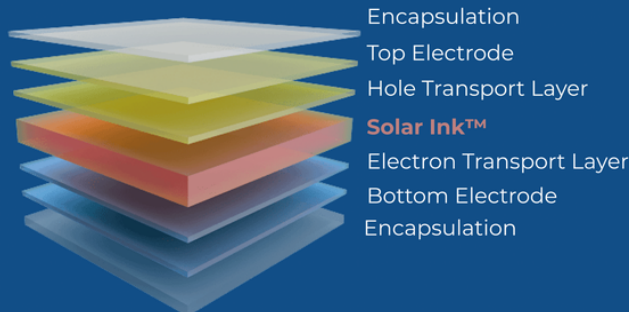


# Evolving Solar Ink™

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.

Innovating photovoltaic solutions  
for a cleaner world  
[www.solaires.net](http://www.solaires.net)

# 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<sup>-3</sup>

### Viscosity at 25 °C

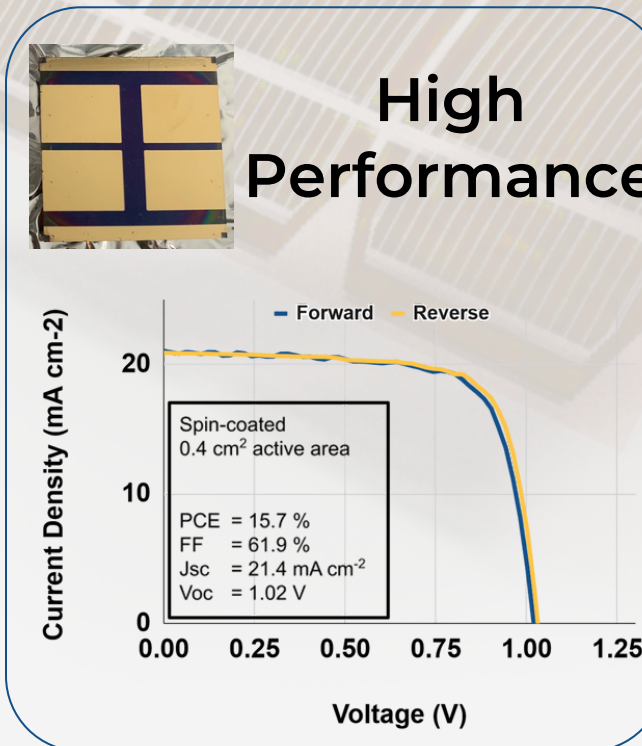
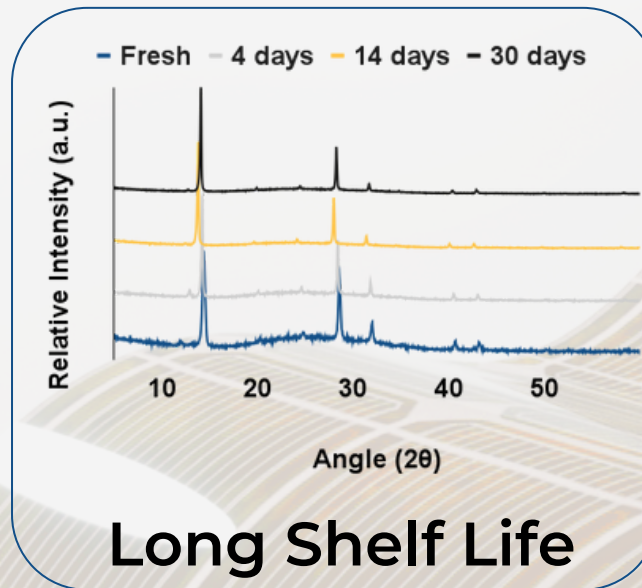
~7 cP

## Packaging Sizes

We offer sizes of 5 mL, 10 mL, 25 mL, 50 mL, 100 mL

\*when handled as instructed

# Solar Ink™ Evolved



## 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™.

www.solaires.net