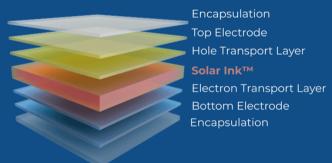


# Introducing Solar Ink<sup>TM</sup>

Solaires is a cleantech 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<sup>TM</sup>.

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, hot-plate heating to complete crystallization.

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



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



Optimized for spin coating and blade coating.

## 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<sup>TM</sup> One Our Original Formulation

## **Specifications**\*

**Perovskite Type** 

Mixed-halide, mixed cation Formamidinium iodide, Lead iodide, Methylammonium Bromide, Lead Bromide, Methylammonium Chloride

**Precursor Materials** 

Solvents

DMF and NMP

**Optical Band Gap** 

1.4-1.6 eV

#### **Device Efficiency**

~20 % (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 ~60 days

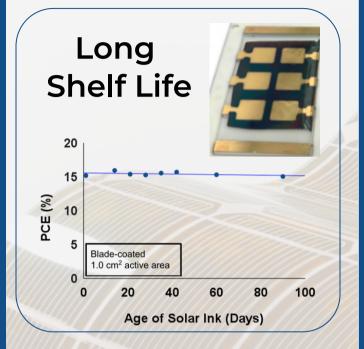
Surface Tension ~42 mN/m

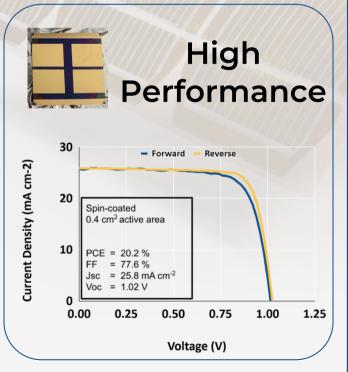
Viscosity at 25 °C ~7 cP

## **Packaging Sizes**

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

### Solar Ink™ One





#### **Get in Touch**



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#### **About Solaires**

Solaires Entreprises Inc. is a Canadian cleantech company headquartered in Victoria, BC. Solaires consists of a team of scientists, engineers, and business professionals. Solaires is focused on developing the next generation of solar cells by replacing silicon with perovskite through innovative and sustainable designs, resulting in affordable solar photovoltaics with high energy conversion efficiencies.

www.solaires.net