

## **Fact Sheet - Ammonia Safety**

- Ammonia is well known to pose a risk to human health via direct contact and inhalation. However, with 200 million metric tonnes of ammonia used per year, primarily in agriculture, the regulations, infrastructure and practices already exist for safe and extensive use of ammonia.
- As a fossil fuel replacement, there are a number of studies that have been done to illustrate the safety of ammonia relative to other fuels. It has been determined that ammonia is far safer than highly flammable fossil fuels, and more stable than hydrogen.
- FuelPositive's green ammonia will not contribute to pollution. When used properly, in agriculture or as a fossil fuel replacement, the only discernable emissions will be water vapor, or in the case of agriculture, some hydrogen emissions which are completely inert. Nitrous Oxide (NOx) emissions, associated with traditional ammonia, will be avoided by using a modified catalytic convertor in engines and by injecting the liquid fertilizer deep into the ground (already standard practice) in farming.

## **Details**

- Green ammonia is significantly safer than anything else we have now.
- It ignites at extremely high temperature (651°)

   much higher than gasoline, diesel or propane, meaning it requires much more heat to ignite, which reduces the risk.
- Because it is lighter than air, it rises when released, dissipating into the atmosphere without polluting.
- Its detectable smell alerts people to go downwind. This makes it safer than potentially harmful chemicals that can leak without being detected.
- NOx can be avoided with catalytic convertors and deep fertilizer injection.
- The resultant emission from FuelPositive's green ammonia fuel is water vapor.

<sup>&</sup>lt;sup>1</sup> Government of Canada, <u>Common Air Pollutants</u>. Found on July 15, 2021.