

General Product Information

PiperION ionomers are highly conductive, mechanically robust, and chemically stable in caustic and acid environment hydroxideexchange ionomer solution. PiperION-C was designed for fuel cell, and electrolyzer devices, but can be used in almost any application where anion exchange is required.

The ionomer solutions are identified by type and Sample ID. The Sample ID is on an adhesive sticker on the vial with the ionomer. Please refer to the identification number in communications about questions or concerns.

Delivery

The ionomer is delivered as a solution (5% solids by wt.). The vial that the ionomer is in has the label with the Sample ID.

Handling

The ionomer is delivered in **bicarbonate form.** Keep the ionomer inside the provided package when unused. Unpack the ionomer for direct use. Store, handle, and process the ionomer in a clean, dust-free area. When finished, ensure the package is well sealed to avoid any solvent evaporation from the ionomer solution to ensure that the solids do not precipitate.

Pretreatment

Due to the ionomer being in bicarbonate form when shipped, a break-in procedure for the final device is recommended to convert the bicarbonate into hydroxide which increases the conductivity and improves performance. An increase in conductivity during break-in demonstrates the conversion of the ionomer from bicarbonate form to hydroxide form.

PiperION-C: Ionomer

Safe Handling of PiperION-C

The following information should be reviewed before handling and processing PiperION-C ionomer solution:

• Material Safety Data Sheet for PiperION-C ethanol solution

Scrap Disposal

Preferred disposal options are (1) recycling and (2) landfill. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

Properties of PiperION-C

Structure



IEC

 $3.55 \text{ meq/g} (OH^{-} \text{ form})$