

Phix XIV[®]

HEARTLAND
ENERGY GROUP LTD.

Technical Data Sheet

Phix XIV[®] offers a high pH solution without the use of caustics such as sodium hydroxide, potassium hydroxide or other dangerous chemicals. Phix XIV[®] is used as a replacement for caustics in a variety of industries including food processing, oil and gas exploration, as well as industrial cleaning.

Phix XIV[®] carries a triple-zero HMIS score and is classified as a non-skin irritant and is non DOT regulated. Phix XIV[®] is durable and effective at raising pH and cleaning in cold temperatures and is freeze-thaw stable. The risk of burns from traditional caustics is greatly reduced, as well as reducing the damage that caustics can do to equipment.

Phix XIV[®] is a safe, viable alternative for caustic solution applications, such as neutralizing acid gases in drilling and production fluids, increasing the alkalinity of fluid mixtures, cleaning and degreasing agent and resin regeneration.

Phix XIV[®] can be used full strength or diluted with water to replace caustic cleaners.

FEATURES AND BENEFITS:

- Excellent buffer for frac fluid systems
- Great stability performance in high temperature and high pressure fluid systems
- A great replacement for NaOH in crosslinked systems
- 100% Caustic free • Non-corrosive
- Effectively increases pH
- Precipitates magnesium
- Does not donate a sodium ion
- Safe on metal
- No neutralization step
- FDA approved GRAS
- Non-DOT Regulated • Non skin irritant
- 100% Readily biodegradable
- Non-Destructive on human skin/eye tissue
- Non-toxic • Non-mutagenic
- Non-skin irritant
- <10 day biodegradation
- Zero corrosion rate on most metals

TYPICAL PHYSICAL PROPERTIES:

Appearance and Color	Clear to colorless liquid
Initial Freeze Point	-10°F (-23°C)
Odor	Odorless
Solubility in Water	100%
Flashpoint	None
Biodegradable	100%
Specific Gravity	1.32 ± .04

DIRECTIONS FOR USE:

Dilution rates will vary based on the pH requirements of the system. Due to its liquid form, required concentrations may be higher than typical forms of dry caustic. Add to fluid or water to raise pH as needed.



Recommendations given in this data sheet are based on tests believed to be reliable. However, the use of the information is beyond the control of Heartland Energy Group, Ltd., and no guarantee, expressed or implied is made to the results obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage from the misuse of the product as such, or in combination with other materials. This bulletin is not to be taken as a license to operate under or recommendation to infringe any patent.

Heartland Energy Group, Ltd.

Grain Valley, MO

Melbourne, FL

Norfolk, VA

Victoria, Mahé-Seychelles

www.heartlandenergygroup.net

Phone: 1-877-797-2811

Fax: 1-816-867-2055

©2013 Heartland Energy Group, Ltd. All Rights Reserved.