

King of Prussia, PA, Jan. 13, 2016

Arkema's MSA LC for biodiesel helps protect equipment and supports high quality biodiesel production

Arkema introduces its Methane Sulfonic Acid – Low Corrosion (MSA LC), a low corrosion version of its MSA that provides a wide range of benefits to the esterification industry in general and the biodiesel industry in particular.

The new MSA LC addresses the corrosion problems that result when inorganic acids, such as sulfuric acid and hydrochloric acid, are used in the pre-esterification process. This key step increases yield through conversion of free fatty acids to quality biodiesel (fatty acid methyl esters or FAME) typically produced using stainless steel equipment. In the biodiesel industry, equipment failure due to corrosion is a common issue and is often caused by the acids used in biodiesel production.

"MSA LC provides excellent corrosion control while maintaining high conversion to and yields of quality biodiesel," said Vijay Srinivas, principal research scientist in Arkema's North American thiochemicals business unit. "Its use reduces plugging by salts downstream in the process and reduces catalyst loss compared to sulfuric acid. In addition, using MSA LC significantly reduces the amount of base catalyst required for the subsequent trans-esterification step, which allows the acid recovered in the aqueous phase after esterification to be reused elsewhere in the process, resulting in overall cost savings," Srinivas noted. "The biodiesel produced using MSA LC has less metal content and less sulfur," he added.

Benefits of MSA LC include better color and clarity of the resulting biodiesel as well as the flexibility to use diverse feedstocks with FFA content from very low concentrations to high concentrations. Use of MSA LC can also help eliminate or reduce waste treatment because MSA LC salts are completely biodegradable with low COD.

MSA LC is fully compatible with standard stainless steels AISI 304, AISI 316, and the low carbon or Ti stabilized versions. Using the MSA LC grade in a biodiesel unit can significantly reduce the risk of corrosion in pipes, reactors, separators, and purification units. Overall, MSA LC is a very versatile acid that provides strong acidity, high solubility of alkali metal salts, biodegradability and, for esterification processes, high selectivity of the reaction. It is most often delivered, transported and used as a 70 percent aqueous solution.

Please visit Arkema's booth (#128) at the 2016 National Biodiesel Conference & Expo on Jan. 25-28, 2016, (Expo booth dates are Jan. 26-27) at the Tampa Convention Center in Tampa, Florida.

About Arkema

A designer of materials and innovative solutions, Arkema shapes materials and creates new uses that accelerate customer performance. Our business portfolio spans high-performance materials, industrial specialties and coating solutions. Our globally recognized brands are ranked among the leaders in the markets we serve. Reporting annual sales of €7.5 billion in 2014, we employ approximately 19,200 people worldwide and operate in close to 50 countries. We are committed to active engagement with all our stakeholders. Our research centers in North America, France and Asia concentrate on advances in lightweight materials, renewable feedstocks, energy generation and storage, water treatment, electronics and 3D printing. For the latest, visit www.arkema.com.

Press Contact:

Stan Howard Tel.: 610 205 7027

E-mail: stan.howard@arkema.com

Commercial Contact:

Brian Harrington Tel.: 440.654.1541

E-mail: brian.harrington@arkema.com

Gwendolyn McDay Tel.: 610.205.7433

E-mail: gwendolyn.mcday@arkema.com