# **ExconMobil**

### Clean fluids for clean water

A global challenge: accessibility to clean water





The importance of access to clean water is emphasized as one of the United Nations' seventeen Sustainability Development Goals (SDGs). SDG #6, Clean Water and Sanitation, which intends to "improve global water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse". This goal is tracked through an indicator of "safely managed drinking water services" and effective water treatment solutions are key enablers in allowing realization of this goal.

#### What is water treatment exactly?

Water treatment is any process which improves the quality of water to make it suitable for its intended use including potable (drinking) water, water for industrial use, irrigation, water recreation and/or its safe return back to the environment. Water treatment separates and removes contaminants and undesirable components and/or reduces their concentration to a level necessary for its intended end-use. Therefore, effective treatment becomes a critical step toward not only providing accessibility to safe water for human consumption, but also to improving the standard of living afforded through these other end-uses.







#### ExxonMobil's role in helping achieve this goal

Although ExxonMobil doesn't provide water treatment services, its products play a key role in the processes used to treat water. One prominent example is the use of select ExxonMobil Exxsol<sup>™</sup> and Isopar<sup>™</sup> products as key ingredients in the production of polyacrylamide (PAM) polymers which are commonly used as flocculants in water treatment solutions. These polymers enable the encapsulation (trapping) of contaminants and their subsequent removal through processes such as sedimentation, filtration or centrifugation. These same ExxonMobil products also contribute to other water treatment techniques, one such example being their use in the manufacture of membranes for filtration or desalinization of water, converting sea water into fresh water.

## Chemicals as part of the solution? Are they safe from a human health and/or environmental perspective?

That's the beauty! Our Exxsol<sup>™</sup> and Isopar<sup>™</sup> fluids used in these applications demonstrate very low human and aquatic toxicity. They are also considered to be readily biodegradable based on established standards, EU OECD 301F being one such example. It is this same low toxicity profile which also enables meeting stringent U.S. Food and Drug Administration (FDA) and Bundesinstitut für Risikobewertung (BfR) food contact regulations.



#### ExxonMobil Hydrocarbon Fluids - "Helping address today's challenges for a better tomorrow"

For more information, please visit exxonmobilchemical.com/en/solutions-by-industry/industrial-applications/polyacrylamide



Technical question? Connect directly with our technical experts at: FluidsAnswerPerson@exxonmobil.com

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