

For Immediate Release

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GRC and ENEOS Release White Paper Underscoring the Importance of Fluid Selection in Data Center Immersion Cooling Deployments

"Enhancing Data Center Performance with Immersion Cooling and Precision-Engineered Fluids" discusses important fluid selection criteria for ensuring peak performance of immersion cooling deployments

Austin, TX and Tokyo – November 6, 2023 – GRC (Green Revolution Cooling), the leader in immersion cooling for data centers, and ENEOS, Japan's largest lubricant company, have released a jointly developed white paper, "Enhancing Data Center Performance with Immersion Cooling and Precision-Engineered Fluids." The white paper discusses in detail the many important fluid selection criteria for immersion cooling deployments, and also presents valuable resources that can help IT professionals simplify the fluid selection process and enables them to make the best decision to suit their operational goals and green initiatives.

With the growing thermal challenges posed by advanced CPUs and GPUs and the explosive growth of high-power, high-density AI, HPC, and ML deployments, industry experts agree that immersion cooling is positioned to be the superior solution for data centers worldwide. But data center operators understand that not all immersion cooling fluids are the same, and individual fluid properties can have a major impact on critical data center metrics such as performance, infrastructure integrity, and longevity, along with sustainability. The white paper examines the ways in which GRC's ElectroSafe® Fluid Partner Program rigorously vets and tests fluids to give data center operators the confidence they need to select the appropriate fluid, and also provides detailed information on a variety of immersion cooling fluids available from ENEOS that meet or exceed customers' expectations of quality, performance, reliability, and sustainability.

"Selecting the right fluid is a paramount decision for data center operators. It not only influences operational efficiency but also contributes to the overall sustainability of their data centers. ENEOS has long known that to truly get optimal performance, fluids can be detail designed to each application. We offer a diverse lineup to meet our customer's specific needs, including "Immersion J" for Japanese datacenters, "High-Performance Fluid" for demanding next-generation chipset cooling, and "GREEN Fluid", a bio-based fluid to further drive carbon footprint reduction goals." says Nicholas Ficht, Sr Technical Account Manager at ENEOS USA.

"With over 14 years of experience deploying immersion cooling to data centers around the world, the team at GRC know all too well that not all coolants are the same," said Ben Smith, Chief Product Officer at GRC. "Individual fluid properties like electrical resistivity, dielectric strength, and viscosity can have a major impact on critical data center metrics such as performance, infrastructure integrity, and longevity, not to mention sustainability. We're excited to join ENEOS in sharing what we've learned with data center operators and designers as they move to embrace immersion cooling in their facilities."

In addition to releasing this white paper, ENEOS and GRC will be participating together in several high-profile industry events in the coming months, educating attendees on the importance of choosing the best fluid to meet the needs of individual immersion cooling data center deployments and projects while also showcasing the latest immersion cooling offerings from GRC. First, the companies are jointly sponsoring Connect Virginia">DCD>Connect Virginia, taking place November 6-7 at the Landsdowne Resort & Spa in the heart of "data center alley," Leesburg, VA. The companies will then return to Las Vegas together for CES, the premiere technology event in the world and the global stage for innovation, on January 9-12, 2024.

Representatives from both companies will be on hand at both events to answer any questions and provide details on immersion cooling installations, the importance and impact of immersion fluid selection, and the ways in which these combined solutions play a key role in deploying high-performance, high-powered, high-density AI, HPC, and ML solutions while also increasing operational efficiency and reducing data center energy consumption.

About GRC

GRC is The Immersion Cooling Authority®. The company's patented immersion cooling technology radically simplifies deployment of data center cooling infrastructure. By eliminating the need for chillers, CRACs, air handlers, humidity controls, and other conventional cooling components, enterprises reduce their data center design, build, energy, and maintenance costs. GRC's solutions are deployed in twenty-two countries and are ideal for next-gen applications platforms, including artificial intelligence, blockchain, HPC, 5G, and other edge computing and core applications. Their systems are environmentally resilient, sustainable, and space saving, making it possible to deploy them in virtually any location with minimal lead time. GRC's commitment to delivering the highest-quality, immersion cooling products on the market is reflected in its ISO 9001:2015 Quality Management System certification. The company works closely with industry-leading silicon manufacturers to ensure single-phase liquid immersion cooling to be a future-proof solution that cools TDPs of 1000 W and beyond.

About ENEOS

Established in 1888 and headquartered in Tokyo, ENEOS is Japan's largest oil company, with manufacturing and sales facilities throughout the world. With a unique position in its home market, ENEOS has worked with Japan's automakers and leading race teams for decades,

creating advanced lubricants with vehicle engineers to provide optimum fuel economy with maximum power and long-term protection. Building upon this legacy, ENEOS USA ventures into the realm of immersion cooling fluids, presenting a dynamic product lineup meticulously designed for liquid immersion cooling applications. Within this portfolio, three distinct immersion cooling fluids are offered, each tailored to address unique application requirements. These fluids include a sustainable cooling solution that sets high standards for eco-friendliness, as well as high-performance fluids. Additionally, ENEOS introduces "Immersion J" fluid, a product specifically crafted to meet the unique requirements of Japanese data centers, enhancing both performance and sustainability. This comprehensive product range exemplifies ENEOS's dedication to delivering exceptional solutions for data center operators while upholding environmental responsibility. With a strong global presence, ENEOS remains a leader in improving data center operations, meeting industry demands, and promoting sustainability.

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