

PUBLIC REDACTED GUIDELINE RESPONSE

STATE OF MONTANA

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AS-290

JAN - 9 2019

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- 1. Public Disclosure: Rockwater’s Product AS-290 is a proprietary surfactant blend, the disclosure of which would cause competitive harm to Rockwater. Specifically, such disclosure would permit competitors to determine the precise chemical identity and composition of this proprietary product. Rockwater has carefully reviewed this product to ensure that only the components that represent trade secret components are protected. To Rockwater’s knowledge, the confidential information (including the chemical name and CAS number) do not appear in any public source. In addition, this information has not been previously disclosed on the FracFocus database by Rockwater or, to Rockwater’s knowledge, any other third party.

The identity of the confidential information and its use in Product AS-290 has not been publicly disclosed by Rockwater or, to Rockwater’s knowledge, anyone else: (i) pursuant to any federal, state, or local law or regulation; (ii) in any professional trade publication; or (iii) through any other media or publications available to the public or Rockwater’s competitors. []

- 2. Safeguarding Steps: Rockwater has treated the exact chemical identity of its Product AS-290 as a trade secret, and has taken (and continues to take) appropriate and required steps designed to ensure that no unauthorized disclosure of such information is made. Internally, Rockwater employees have been trained on the importance of protecting the company’s confidential information and trade secrets. Further, information about the chemical composition of Rockwater’s products is maintained []. Only employees who need to know such information are permitted access to this information. When such information must be disclosed externally, for example to complete a Safety Data Sheet (SDS) or to satisfy applicable regulatory requirements, it is disclosed pursuant to an executed Non-Disclosure Agreement. We understand that our customers similarly treat such information with the highest degree of confidentiality.
- 3. Other Regulatory Review: No other federal, state, tribal or local regulatory body has determined that the confidential information (including its use in Product AS-290) is not entitled to protection from public disclosure or trade secret or confidential commercial information. To Rockwater’s knowledge, the trade secret components do not require full disclosure under any applicable Federal laws. The OSHA Hazard Communication Standard (29 CFR 1910.1200) requires manufacturers to disclose on the SDS any hazardous components present at greater than 1.0% and for carcinogenic components at 0.1%. []
- 4. Commercial Value: In the process of developing AS-290, the [] AS-290 works synergistically with the disclosed components on the safety data sheet when applied to a specific Wyoming

crude oilfield to prevent asphaltene aggregation (sludge formation) [] Since every crude oil has unique characteristics, a universal chemical treatment is not possible and more niche products result for each oilfield. As a result, AS-290 was [] as well as in an effort to provide specific results for downhole application issues []. Through the selection of raw materials, specific blend ratios, subsequent lab and field testing and commercialization we have generated core, proprietary chemistries that provide superior, cost-effective results for our clients. These novel chemistries provide a competitive edge for our group and helps to support further development to meet client and regulatory requirements. Disclosure of the trade secret components of Product AS-290 would negatively impact Rockwater's competitive advantage in the marketplace, and would allow competitors to unfairly benefit from Rockwater's substantial investment of money, corporate resources, ingenuity, and product development. Development of a critical component of a production chemical requires a detailed knowledge of the product's properties, its interaction with other components of the same fluid and the formation being treated, as well as the safety and environmental factors attendant to such fluid. In carrying out its own development activities, Rockwater employs highly skilled and specialized personnel and has expended considerable sums of money to design and construct proper manufacturing facilities and processes. Rockwater has also benefited from years of selling this product and "lessons learned" from its loyal customers. These efforts have yielded a proprietary composition for Product AS-290 that is both novel and unknown to the general industry. Disclosure of this information would unduly harm Rockwater's business and adversely impact the competitive advantage it has spent years to develop and cultivate.

5. Systems Approach: Rockwater has gone to appropriate lengths to protect its confidential information from public disclosure. The use of a "systems approach" would not adequately protect the confidentiality of the product formula in this instance. A trained person skilled in the art of product development for these types of chemical technologies could easily decipher which components are associated with Product AS-290. A "systems approach" to disclosure would also give a trained person an acceptable concentration range to achieve the key performance requirements. A review of such public information would permit Rockwater's competitors to replicate Rockwater's technologies and to commercialize them, eliminating the value of Rockwater's commercial investment and providing a disincentive for future investment.

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Table One
Public Redacted Version

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Product Name: AS-290

Component	CAS Number	Concentration
Isopropanol	67-63-0	10 - 15
Methanol	67-56-1	10 - 15
Butanedioic Acid, Sulfo 1,4 – Bis (1,3 – Dimethylbut)	2373-38-8	20 - 30
Ammonium Alkyl Ether Sulfate	Proprietary	1 - 5
Ethylene Glycol Monobutyl Ether	111-76-2	1 - 5

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