



May 30, 2017

AES Arabia Ltd.
11 , Al Ihsa Street, Jarir Street Crossing,
Al Malaz Dist
PO Box 105689, Riyadh 11656
Kingdom Of Saudi Arabia

Attention To :- Mr. Fawaz Malki,

Subject: Chemical Compatibility of Select AES Arabia Chemical Products with Hydranautics' Membranes

We have reviewed your request concerning the approval for the use of your chemical products with our BWRO and SWRO membrane products. Based on the information and data provided by AES Arabia concerning the use of your products, Hydranautics approves the use of the following products with our membrane products.

Desalcure-A-200	Desalcure-200	Desalcure-A-2010	Desalcure-A-2020
Desalcure-A-300	Desalcure-A-3020	Desalcure-A-3010	Desalcure-A-3030
Desalcure-A-3040	Desalcure-A-3050	Desalcure-3050	Desalcure-A-400
Desalcure-A-800	Desalcure-A-600	Desalcure-A-700	Desalcure-A-701
Desalcure-CI-400	Desalcure-CI-402	Desalcure-CI-500	
AES C-230	AES C-235	AES C-237	Desalcure-BI-3150
Desalcure-BI-3181	Desalcure-BI-3190	Desalcure-CN-440	

This approval is contingent upon the user operating within the dose rates specified by AES Arabia for the project.

This information is intended to indicate that these chemicals are compatible and not harmful to the Hydranautics' membranes when used at recommended levels. Hydranautics does not warrant the performance or effectiveness of your products, nor do we endorse the products.

This approval is valid for 5 years from the date above.

Best Regards,

Craig R. Bartels, PhD
Vice President of Technology
Hydranautics
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November 6, 2017

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To Mr. Fawaz Malki:

With a growing number of membrane chemical products, LG Chem does not issue chemical compatibility statements for membrane cleaning chemicals and chemical additives. It is a responsibility of end-users and AES Arabia Ltd. ("AES") to:

1. Understand specifics of the membrane and chemical application and operation.
2. Ensure compliance to standard laboratory and field test protocols.
3. Provide the necessary quality control measures to ensure chemical consistency and composition.
4. Ensure proper recommendations for chemical compatibility and dosage rates.

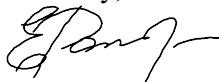
However, LG Chem can confirm that the following chemicals from AES have been used on LG Chem BW 400 R and BW 400 AFR membranes at various locations without altering the integrity and performance of the membranes.

- Antiscalant: Desalcure A-200, 200, A-2010, A-2020, A-300, A-3020, A-3010, A-3030, A-3040, A-3050, 3050, A-400, A-800, A-600, A-700, A-701 per manufacturer's recommended dosage.
- Biocides: Desalcure BI-3150, BI-3181, BI-3190 per manufacturer's recommended dosage.
- Chlorine Deactivator: Desalcure CN-440 per manufacturer's recommended dosage.
- Cleaning Chemicals: Desalcure CI-400, CI-402, CI-500 and AES C-230, C-235, C-237 per manufacturer's recommended dosage and temperature.

This is provided that the chemicals are used as recommended by AES, and the system operating conditions are maintained following the technical manuals and bulletins provided in the web site, LGWatersolutions.com. LG Chem does not endorse AES products, nor claim the efficacy of their products.

LG Chem provides a limited warranty to the original buyer on the workmanship, materials, and performance of all its RO membrane elements, subject to the workmanship and materials limited warranty. This warranty, however, can be invalidated or revoked by actions (or inactions) which damage the membrane or components of the membrane element.

Sincerely,



Eugene Rozenbaoum

Senior Technical Marketing Manager

LG Chem