

## Review Form 1.6

Journal Name:	<a href="#">Journal of Applied Life Sciences International</a>
Manuscript Number:	Ms_JALSI_84115
Title of the Manuscript:	EVALUATION OF TOXIC EFFECTS OF SELECTED PRODUCTION CHEMICALS ON THE NIGER DELTA FRESH WATER TILAPIA GUINEENSIS
Type of the Article	Original Research Article

### General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journaljalsi.com/index.php/JALSI/editorial-policy> )

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### PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<p><b><u>Reviewer's comments and suggestions for manuscript ID: Ms JALSI 84115</u></b></p> <p>This manuscript titled “Evaluation of toxic effects of selected production chemicals on the niger delta fresh water tilapia <i>guineensis</i>” aimed to discuss at evaluating the possible toxic effects of selected production chemicals on the Niger Delta aquatic environment and collaborate findings in other regions of the world and also seek to understand how they possibly contribute to the toxicity of produced water. SPECTRUS NX1173 (Biocide), FLOGARD MS 6208 (Corrosion inhibitor), ELIMINOX (Oxygen scavenger) and EC9017A (anti-foam) chemicals were evaluated in this investigation. This paper reported that the corrosion inhibitor was the most toxic as there was 100% mortality of the Tilapia <i>guineensis</i> within 24hours of the test period, while the defoamer was the least toxic as there were more survival of the test organism at the end of the test period. The experimental data shows that LC<sub>50</sub> calculated for these chemicals is Corrosion inhibitor 0.002%, biocide 0.003%, oxygen scavenger 0.01% and defoamer 0.176%. It was highlighted all the production chemicals used in this research were toxic, their lethal concentrations differed from one chemical to the other, and the corrosion inhibitor and biocide had the highest toxicity effect on the organisms. This manuscript concluded that the research findings will help government regulators to put stricter measures with respect to chemicals to be approved for oil and gas production activities and how best produced water should be discharged depending on the constituent chemicals.</p> <p>This present paper is written methodically, logically and technically. Nonetheless, some points and errors should be rectified before the publication of this paper. The reviewer therefore recommends the publication of this work after <b>Major revision</b> according to the following comments.</p> <p>Comment 1: There are some grammatical errors observed throughout the manuscript. Please correct it grammatically in the revised manuscript.</p> <p>For example- Please refer page 4, section 2.3 Sampling Collection and Handling. “50.00 cm diameters by 7-.00 cm height”. Correct the diameter.</p> <p>Comment 2: What are the challenges for evaluation of toxic effects of selected production chemicals present on the fresh water? Please discuss it.</p> <p>Comment 3: What is the further scope of research in this field? Please incorporate it in revised manuscript.</p> <p>Comment 4: Please see page No. section 2.2 Instruments. Please mention model No/specifications of different instruments used for this investigation.</p> <p>Comment 5: What is purity/grade of the four chemicals (SPECTRUS NX1173, FLOGARD MS 6208, ELIMINOX and EC9017A) used in this investigation?</p> <p>Comment 6: How did you measure the pH, electric conductivity and dissolved oxygen at 0 hr and 96 hrs? Please discuss it in detail.</p> <p>Comment 7: Authors are advised to show proper space between values and units throughout the manuscript. For example: 8hrs (%Mortality), 28°C – 30.9°C, 3.5 – 7.6, 230mg/l – 500mg/l and 2.56mg/l – 7.32mg/l, etc.</p>	<p>Grammatical errors corrected where applicable</p> <p>This was already part of the paper, produced water is commonly discharged into offshore and nearshore aquatic environments in the Niger Delta of Nigeria, the research aims to evaluate how the production chemicals could be contributing to the toxicity of the produced water being discharged into the water bodies.</p> <p>Further scope incorporated in the recommendation section as requested</p> <p>This session has been completely expunged from the manuscript, however, in the re-organization of the manuscript further details has been provided on how the physiochemical parameters were measured.</p>

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	<p>Comment 8: Introduction section needs improvement. It is not clearly indicating the objective of this research work.</p> <p>Comment 9: There many outdated references included in this manuscript. Please remove them and incorporate latest references.</p> <p>Comment 10: There are some minor errors found in list of references.</p> <p>Page numbers need to be written with uniform style. The abbreviations for all journals need to written in list of references. It is advised that please follow the same style of references throughout. Author needs to follow the guidelines of the journal and uniformity. Author can download recently published papers to follow it properly. So, it is advised that please check all the references properly and rectify all the mistakes such as author's name, punctuations (, .etc), year, volume, journal name abbreviations etc.</p> <p>I am sure that these suggestions will certainly improve the present manuscript.</p>	<p>The introduction was focused more on produced water that is being discharged into the aquatic environment. The objective is to evaluate how the production chemicals might be contributing to the toxicity of the produced water that is usually discharged into the environment.</p> <p>This has been corrected</p>
<b>Minor</b> REVISION comments	NIL	
<b>Optional/General</b> comments	NIL	

## PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript? No!	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	