



## Identification and quantification of microplastics in seawater and sea salt collected from sea salt ponds

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Received 3 September 2022; Accepted 10 June 2023

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### ABSTRACT

The existence of microplastics (MPs) in sea salt pond has the potential to pollute produced commercial salt. Therefore, identification and quantification of MPs in sea salt pond become necessary. This study was aimed to estimate the abundance of MPs in Osowilangun and Pademawu sea salt ponds producing commercial salt. Properties of the identified MPs in terms of shapes, color, size, and polymer type were characterized. This study found that the two study locations contained MPs with different levels, namely, a total of 38 particles were found in the Pademawu sea salt pond and 35 particles were found in the Osowilangun sea salt pond. Colors for the identified MPs were blue, black, red, and white depending on the sampling points and samples. In addition, size of MPs ranged from 0.2 to 0.8 mm and shape of MPs was dominated by fragment (90.32%) in Osowilangun sea salt pond and 86.98% in Pademawu sea salt pond. Findings of this study are highly important and significant for confirming the presence of MPs in sea salt ponds before producing for consumption.

*Keywords:* Microplastics; Seawater; Sea salt; Environmental pollution

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