Tsunami PA

Description:

Liquid agent used as processing aid in the vegetable washing of fruit and vegetable processing industries

Product strengths:

- low application concentration
- low application temperature

Properties

Concentrate	**Appearance:**	clear, colourless liquid *
	Storage stability:	-20 to 30 °C
	Solubility:	miscible with water in any proportion
	Density:	1.13 - 1.15 g/cm3 (20°C) *
	P content:	0.18 %
	N content:	0.00 %
	COD:	not applicable
	Flash point:	72 °C, not able to propagate a deflagration
Application solution	**pH:**	2.6 - 3,0 (1 %, 20 °C, deionized water)
		2.7 – 3.3 (500 ppm, 20°C, deionized water)
	Foam characteristics:	non foaming, suitable for flume water

* Parameters subject to incoming goods control

Material compatibility:

Application solution: **Tsunami PA** is, under the application conditions described below, compatible with:

- **Metals** — Aluminium 99.5 (3.0255), Austenitic CrNi steels (AISI 304 types; 1.4301; 1.4541), Austenitic CrNi steels (AISI 316 types; 1.4401; 1.4571), Titanium, Alloy C4 (DIN 2.4610), Ceramic: Al2O3
- **Plastics** — LD-PE, HD-PE, PP, PVC-P (soft PVC), PVC-U (hard, rigid), PVDF, PTFE, Epoxy-coating (e.g. Munkadur, Obrit)
- **Plastics** — NBR, HNBR, EPDM, FKM, HF-FKM, FFKM, PTFE

Comments: The suitability of higher concentrations and/or other plastic materials should be tested in case of need.

Application

General recommendation:

Concentration:	300 - 500 ppm
Temperature:	4 - 20 °C

Monitoring

Concentration determination

- **Titration**

Receiving flask:	100 ml application solution
Titration solution:	0.1 n potassium permanganate solution + 0.05 n sodium thiosulphate solution, sulphuric acid
Indicator:	potassium or sodium iodide, starch solution (1 %)

Note: The concentration determination is successful, when the flume water has room temperature.

Add 10 ml sulphuric acid to the conical flask and start the first titration step with potassium permanganate solution, until a slight pink colour appears in the solution.

Add approx. 0.5 g potassium iodide or sodium iodide and approx. 1 ml starch solution to the conical flask.
The colour changes from slight pink to black/brow
Titrate by using sodium thiosulphate ($Na_2S_2O_3$) from black/brown to white/colourless.

Volume added of sodium thiosulphate in ml x 127 = concentration **Tsunami PA** in mg/l (= ppm)
Please note the difference between total oxygen- and peracetic acid determination.
To evaluate the efficacy of **Tsunami PA**, the peracetic acid content in the application solution is of major importance.

Rapid determination:

A semiquantitative rapid determination can be carried out by means of "Merckoquant peracetic acid test-strips".
The test is suitable for the selective determination of peracetic acid traces in aqueous solutions, also in cases where hydrogen peroxide is present.

A 500 ppm (0.05 %) **Tsunami PA** solution contains 75 - 80 ppm peracetic acid.
A semiquantitative rapid determination can be carried out by means of "Merckoquant Perex-test"-stripes. This method identifies 0 - 500 ppm total peroxide.

Concentration control

The dosage of **Tsunami PA** can be carried out volume-proportional to the batch process.
In case of a volume-proportional dosage, it is necessary to check the concentration of the processing aid by validated process.

Safety

The relevant hazards identifications of **Tsunami PA** are given in the EC Safety Data Sheet. If any questions arise in this context please contact your Ecolab representative.

The statements, information and data presented herein are believed to be accurate and reliable. The information describes the characteristic features of **Tsunami PA** in ordinary use but cannot be taken as a guarantee, express warranty or implied warranty for the suitability for a particular purpose and shall not extend mandatory warranty rights (if any). The specifications and performance may vary subject to the operational conditions. Since numerous parameters will influence product performance and applicability, this information does not exonerate the user from liability with respect to the suitability of the product and the appropriate safety measures to be taken. Moreover, a possible infringement of patent rights must be avoided at all times.

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