Supporting Information for

Occurrence and Concentrations of Benzotriazole UV Stabilizers in Marine Organisms and Sediments from the Ariake Sea, Japan

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Quality Control. A standard mixture containing all UV filters analyzed in this study was used to
determine recovery rates of the compounds through the analytical procedure. Salad oil (0.5 g), that
did not contain the target compounds, was spiked with 50 ng of the standard mixture. Three replicate
analyses were performed, and the average recoveries of UV-320, UV-326, UV-327, UV-328,
4-MBC were 114±12, 122±11, 114±14, 110±8.8, and 93±4.4 %, respectively. The recoveries of
surrogate standard, d-phanathrene, ranged from 86 to 107 % in this study. A procedural blank was
analyzed with every set of six samples to confirm interfering peaks in chromatograms and to correct
sample values. The concentrations were reported as below the limit of detection, if the peak height
was not greater than a signal to noise ratio of 3 times the blank values. The detection limits of UV
filters were 0.05, 0.10, 0.12, 0.15, 0.02 ng/g (wet wt) for UV-320, UV-326, UV-327, UV-328, and
4-MBC, respectively.
Fig. SI-1 GC-MS chromatograms (SCAN mode) and mass spectra of UV-328 in a liver of hammerhead shark collected from Japanese coastal water and a standard mixture.
**Fig. SI-2** Compositions of benzotriazole UV stabilizers in sediments collected from the Ariake Sea, Japan
Fig. SI-3  Relationship between UV-326 and UV-327 concentrations in sediments from the Ariake Sea, Japan.