No-Harm List

Oxidation Stabilisers

for FAME as blend component in heating oil

As by: 23.09.2021

The no-harm test for oxidation stabilisers for FAME as blend component in heating oil comprises the following test criteria:

- Minimum requirements (B100)
- Interaction test (B100)
- DGMK filtration test 663 (B20)
- Relative efficiency (B100)

Products that fulfil all criteria of the no-harm test are published in this no-harm list of Association Quality Management Biodiesel (AGQM). Additional information can be found on the website (<u>www.agqm-biodiesel.com</u>).

The no-harm tests are carried out with B100 (FAME, 70% RME, 30% SME) and B10 blends (10% (V/V) FAME in diesel fuel) and all requirements of the test must be met at a dosage rate recommended by the producer. The maximum dosage rate is 1200 ppm. Please note that the no-harm properties of the additive are only valid for the indicated dosage rate or lower dosages. The no-harm properties were only tested in the fuel mixture specified above and the test results only apply to this accordingly.

Dilutions: If a modified additive has the same ingredients and ratio of active components as a product that passed the no-harm test successfully and only the ratio between the active components and the solvent is changed, the no-harm test does not have to be repeated. The additive will be added to the no-harm list, if the producer declares bindingly that it is a dilution of a product already tested. This will also be mentioned in the no-harm list.

Since the development of the no-harm test oxidation stabilizers for FAME as a blending component in heating oil, the test methods and techniques for testing quality properties have developed further or will be newly developed. To take this technical progress into account and to meet future requirements and challenges with the no-harm test, all products that have successfully passed the no-harm test since 2019 must be tested again every 5 years if the no-harm test procedure changes significantly. Significant changes include, for example, newly developed test methods that replace methods from the no-harm test, higher requirements due to changes in the limit values or the implementation of new parameters that are necessary to ensure the no-harm properties of a product. Products that have not been retested will be removed from the no-harm list.

AGQM carried out the project with the greatest possible scientific accuracy and care. Nevertheless, no guarantee can be given for the correctness, completeness and topicality of the content provided. For this reason, we exclude any liability in connection with the use of the no-harm list. It is recommended to obtain the information directly from the manufacturer.

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Overview of successfully tested Antioxidants for biodiesel as a blending component in heating oil

Reg. no.	Filed	Company	Brand name	Test level
2021-H-04	04.08.2021	Nalco Water – An Ecolab Company	EC5609A	B20
2019-H-03	25.04.2019	Dorf Ketal B.V.	SR 1529	B20

The products listed below were tested before the no-harm conditions introduced in 2019 and will not be re-tested after 5 years if there are significant changes in the testing procedure.

Reg. no.	Filed	Company	Brand name	Test level
2018-H-02	28.05.2018	IFO Agro LLC	IFO-6hD	B20
2017-H-01	06.06.2017	Oxiris Chemicals S.A.	IONOL BH1000	B20

