

Technical Information

Baynox Solution

Article No.:

06352332

Form supplied:

LIQUID

1 kg contains min 20% g/g Butylhydroxytoluene

dissolved in biodiesel

CAS-Nr.: 000128-37-0

Butylhydroxytoluene

NET

Germ. : Baynox Solution

Fr. : Solution de Baynox

Span. : Baynox Solucion

Port. : Baynox Solucion

Description:

Clear, yellow liquib with a slight odour of biodiesel

Valid from: 2007-12-20

Cancels edition dated: 2007-01-11

Reason for issue: Supplementation field dosage recommendations

Specification-No.: 06352332-1-03

Page 1 of 4

Baynox Solution

Specification :

Appearance : conforms with product description

Content of active ingredient Min 20% g/g

Specification values are subject of constant monitoring.

Characteristic data :

Miscibility : Not miscible with water
Miscible in all proportions of biodiesel

Kin. Viscosity (20°C) DIN 51757: 9,9 mm²/s

Density: 0,89 kg/l

Ash content: max. 200 ppm

Characteristic data provide further information about the product and are not subject to constant monitoring. They are therefore not binding (see notes in last section).

Uses :

Baynox Solution is suitable for the stabilization of biodiesel. Baynox Solution improves the stability values in the rancimat test according to DIN EN 14214.

Baynox Solution is particularly recommended for biodiesel from vegetable oils with a low content of multiple unsaturated fatty acids and an iodine number of <120. If the activity is not sufficient, it is recommended to use the stronger product Baynox Plus instead.

The dosage and the compatibility with the customer's biodiesel should be tested in lab trials.

Baynox Solution prevents the air oxidation of biodiesel; the stability values in the rancimat test are improved clearly. Unstable biodiesel becomes quickly rancid. It develops free fatty acids, which lead to corrosion damages of the engine, in particular at the injection system. At the same time Baynox inhibits the formation of insoluble crosslinked polymers due to oxidation of the biodiesel, which lead to engine damages.

Baynox is compatible with common CFPP improvers for biodiesel. Adverse reactions have not been reported.

The active ingredient of Baynox solution (BHT) is recommended as antioxidant for biodiesel by the German AGQM-Biodiesel.

Baynox Solution received the "no harm" status from OMV Refining & Marketing, Austria. Thereby it is suitable as antioxidant for biodiesel for blending into petroleum diesel.

Valid from: 2007-12-20

Specification-No.: 06352332-1-03

Cancels edition dated: 2007-01-11

Reason for issue: Supplementation field dosage recommendations

Page 2 of 4

Baynox Solution

Uses:

For the production of Baynox Solution biodiesel which fullfills the DIN EN 14 214 specification is used.

The Baynox Solution can be stored in tanks of the same material than biodiesel itself.

Standard packing and storage:

20 m³ Iso-cointainer, car tanker or 1 m³ IBC

Samples on request

Storage stability ; max 24 months

Shipping, toxicity and hazards:

At temperatures < 0°C precipitation of the active ingredient might occur . These can be redissolved through warming up or heating. The precipitation and redissolving does not lead to a change in activity.

Baynox Solution is not marking required
Please not our EU-safety data sheet No. 56194855.

The afformentioned notices do not guarantee the general use of biodiesel from different origin in the used engines. This has to be tested and proved by the user and/or producer of the biodiesel under his own reliability. The car manufacturers guidance for the use of biodiesel has to be followed.

Valid from: 2007-12-20

Specification-No.: 06352332-1-03

Cancels edition dated: 2007-01-11

Reason for issue: Supplementation field dosage recommendations

Page 3 of 4

Baynox Solution

Dosing recommendations for BAYNOX®

Rapemethylester RME

In order to obtain a biodiesel with a stability of at least 3 weeks starting from production, a rancimat value of > 10 hours in the Rancimat test is essential. To achieve this value following dosage recommendation of Baynox in relation to natural starting stability of the biodiesel is recommended.

Natural starting stability \geq 6 hours

Baynox : 400 ppm = 0.05% g/g or

Baynox Solution: (= 20 % Baynox in biodiesel): 2.500 ppm = 0.25 %

(= 0.5 kg of Baynox or 2.5 kg of Baynox Solution per 1.000 kg of biodiesel)

Natural starting stability < 6 hours

For each hour rancimat value < 6 hours the Baynox dosage should be increased by 100ppm/0,01% i.e.

500ppm/0,05% Baynox solution

(= 0.1 kg of Baynox or 0.5 kg of Baynox Solution per 1.000 kg of biodiesel)

Rapemethylester containing Soymethylester (SME) 20 - 25 %

The above dosage recommendations should be increased by 200ppm = 0.02% Baynox (= 0.2 kg per 1.000 kg of biodiesel) or 1.000 ppm = 0.1% Baynox Solution (= 1.0 kg per 1.000 kg of biodiesel).

Example for calculations:

For a biodiesel with max. 25% of SME and an natural starting stability of 4 hours the following dosages result.

Baynox	Standard	500 ppm Baynox
	2 h Rancimat under 6 hours	+ 200 ppm Baynox
	SME 20 %	+ 200 ppm Baynox
	entire	900 ppm Baynox
	or	4,500 ppm Baynox Solution

Parts of Palmmethylester PME do not need to be considered.

RME with > 25 % RME and pure SME are not stabilized not with Baynox , but rather with Baynox Plus. Recommendations on dosage check technical information on Baynox Plus.

Application reference: Please note that these dosing recommendation are only due to experiences out of lab tests results. To the transfer these result on to a specific customer biodiesel qualities tests a the customer´s side should be performed.

This information, with the exception of the data given in the section „Specification“, and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery.

Valid from: 2007-12-20

Specification-No.: 06352332-1-03

Cancels edition dated: 2007-01-11

Reason for issue: Supplementation field dosage recommendations

Page 4 of 4