European Fuel Oil Blend Components

Complex mixtures of (mainly aromatic) C9 - C15 hydrocarbons

General

The fuel oil blending component products of the Aromatics Business of Dow are mixtures of (mainly aromatic) C9 to C15 components. They originate from high temperature cracking of petroleum fractions and are separated by distillation of benzene from pyrolysis gasoline.
The main application of these products is to be blended into bunker fuels or refinery fluxants.

Available Grades

AROMATIC OIL (AO)	- A distillation bottoms rich in indene, methylindenes and naphthalene.
BLEND TN 350	- A mixture of C12 and higher components.

Physical Properties

The fuel oil blending products in this data sheet show a variety of appearances ranging from a yellow oily liquid to a dark brown oil with a light to strong aromatic odor. The products are immiscible / insoluble in water and have a flashpoint above 60°C
The materials originate from petroleum cracker operations, hence as supplied are low in sulfur, but the composition may vary in time.

In the tables below some product typical properties and typical compositions are given.

Product Typical Properties

Test Parameter	AROMATIC OIL	BLEND TN 350
Specific Gravity (15 °C) (Water=1)	0.97 – 0.99	1.07 – 1.09
Viscosity (mm^2/s; cSt @ 50°C)	1.5 – 7	24 (60 °C)
Initial Boiling Point (°C)	160	170
10 % Boiling Point (°C)	175	
90 % Boiling Point (°C)	290	480
Flash Point (°C)	61 – 75	70 – 95
Pour Point (°C)	-10 - 10	< -20
Vapor Pressure (40 °C)	<10 hPa	~ 1 hPa (20 °C)
Relative Vapor Density (Air=1)	~ 5	~ 5
Sulfur (%-w/w)	< 0.2	0.01 – 0.04
Autoignition Temperature (°C)	> 220	540
Appearance	Yellow to brown liquid	Brown viscous liquid

Note 1: Data above are based on average production data from 2004. As the products originate from petroleum cracker operations these values may vary during the year as result of changing operational conditions of the cracker.
Note 2: The data above are typical values, not to be construed as specifications. Users should confirm results by their own tests.

Product Typical Composition

Component	AROMATIC OIL	BLEND TN 350
Dicyclopentadiene	15 – 20 %	
Indene	0 - 5%	
Methylindenes	10 – 15 %	
Naphthalene	15 – 25 %	~ 10 %
Methylnaphthalene	10 – 20 %	~ 20 %
Cis/trans-Stilbene		
Methylbiphenyl		~ 10 %
Fluorene & Anthracene		~ 10 %
Asphalthenes		~ 10 %
Other polycyclics	25 – 40 %	~ 40 %

Note 1: All data are given in %-w/w unless stated otherwise.
Note 2: Data above are based on average production data from 2004. As the products originate from petroleum cracker operations these values may vary during the year as result of changing operational conditions of the cracker.
Note 3: The data above are typical values, not to be construed as specifications. Users should confirm results by their own test.

Production Locations

- Terneuzen (The Netherlands)
- Rotterdam (The Netherlands)

Suggested Applications

All products in this data sheet are suitable to be blended into bunker fuel or fluxant..

AROMATIC OIL or BLEND TN 350 may also be used as raw materials for naphthalene or naphthalene & methylnaphthalene mixtures used in the production of concrete plasticizers, phthalic anhydride and insecticides.

More Information

For more information about the aromatic products of Dow (i.e. Sales Specifications, (Material) Safety Data Sheets, Availability, Technical Services & Development, Regulatory Status and other information) please visit our website at:

www.dowaromatics.com

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