

# INEOS Oligomers

## 1-Decene (Alpha Olefin C10)

1-Decene, a clear water-white, mobile liquid, is produced by Ineos Oligomers by using a modified Ziegler ethylene chain growth technology. The product is 99+% olefinic.

### Applications

1-Decene enters into all reactions typical of alpha olefins. It can be used as a comonomer in certain copolymers and as an intermediate in the production of epoxides, amines, oxo alcohols, synthetic lubricants, synthetic fatty acids, and alkylated aromatics.

### Typical Properties<sup>1</sup>

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#### Carbon Number, wt% (by GC)

C <sub>8</sub> and lighter	0.2
C <sub>10</sub>	99.8
C <sub>12</sub>	<0.1
	<hr/>
	100.0

#### Hydrocarbon Type, wt% (by GC)

Monoolefin	99.8
Paraffin	0.2
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	100.0

#### Olefin Isomers, mole% by (NMR)

Linear terminal	95.6
Branched terminal	3.3
Linear internal	1.1
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	100.0

#### Other Properties

Color, APHA	5
Density at 20°C, g/mL	0.741
Density at 68°F, lbs/gal	6.18
Flash Point, °C, (ASTM D 56)	46
Boiling Range, °C, (5%-95%)	170-171

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<sup>1</sup>Typical properties will vary within specification limits.

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## Transportation Mode

1-Decene is stored under a nitrogen blanket. It is not corrosive to steel or aluminum. Contact with air or oxygen should be avoided because alpha olefins are sensitive to moisture and auto-oxidation which form impurities that can interface with subsequent reactions. Alpha olefins should be handled under a dry, inert gas atmosphere. As with all hydrocarbons, alpha olefins can form explosive mixtures with air or oxygen in certain concentrations.

1-Decene is available in rail tank cars, tank trailers, marine vessels and isotanks.

1-Decene is available in drums on special order.

Harmonized Tariff Number:

IMO: 2901.29

DOT: 2901.29

## Selected Specification Values

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### Carbon Number, wt% (by GC)

C<sub>10</sub> 98.0 min.

### Hydrocarbon Type, wt% (by GC)

Monoolefin 99.0 min.

Paraffin 1.0 max.

### Olefin Isomers, mole% (by NMR)

Linear terminal 94.6 min.

### Other Properties

Water, ppm 80 max.

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## Regulatory Information

The product and uses described herein may require global product registrations and notifications for chemical inventory listings, or for use in food contact or medical devices. For further information, send an e-mail to: [oligomersmsds@ineos.com](mailto:oligomersmsds@ineos.com)

## Health and Safety Information

The product described herein may require precautions in handling and use because of toxicity, flammability, or other consideration. The available product health and safety information for this material is contained in the Material Safety Data Sheet (MSDS) that may be obtained by calling +1-866-363-2454 (Toll Free-North America), or by sending an e-mail to: [oligomersmsds@ineos.com](mailto:oligomersmsds@ineos.com). Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.

The Material Safety Data Sheet for this product contains shipping descriptions and should be consulted, before transportation, as a reference in determining the proper shipping description. If the material shipped by Ineos Oligomers is altered or modified, different shipping descriptions may apply and the MSDS of the original material should not be used.

For additional information, samples, pricing and availability, please contact:

## INEOS Oligomers

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