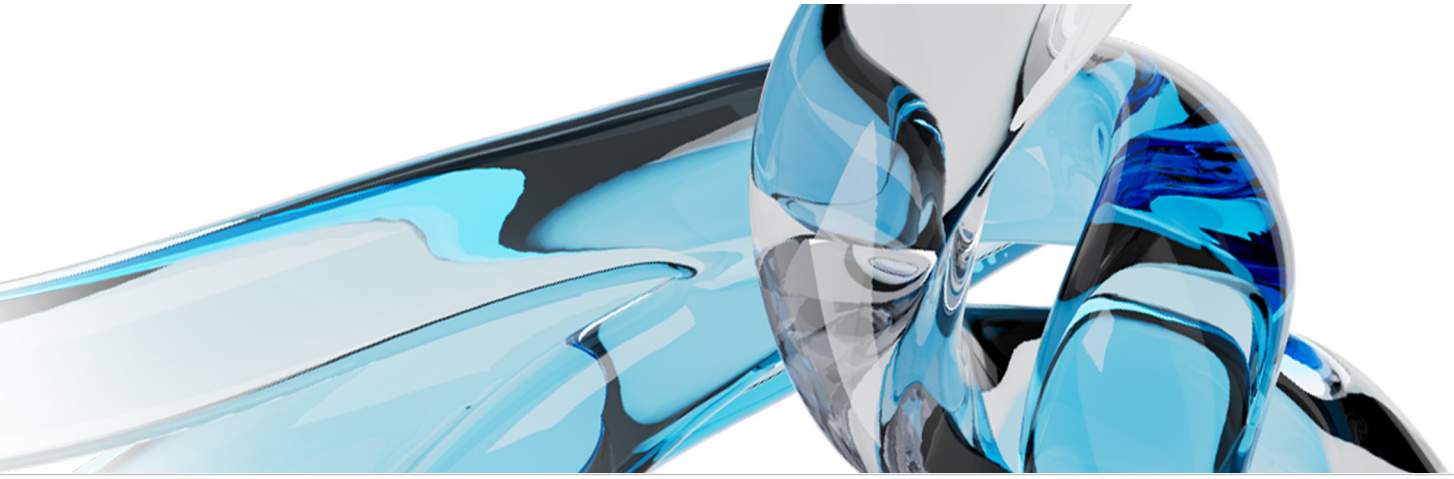


ExxonMobil NDA Prime: Your better alternative to 2-ethylhexanoic acid

Summary

The European Chemicals Agency (ECHA) has reclassified 2-Ethylhexanoic acid (2-EHA) and most of its salts as Reprotoxic Category 1B. The global industry is adapting to this reclassification by using neodecanoic acid (NDA), since it has a more advantageous classification and labeling profile, and is a safe-to-use replacement for 2-EHA.

ExxonMobil offers NDA Prime, a neodecanoic carboxylic acid with a long and highly branched alkyl chemical structure. ExxonMobil NDA Prime offers attributes that make it a better alternative to 2-EHA than offerings from closest competitors.

NDA Prime can help deliver product performance and business advantages

We are the world's largest neodecanoic acid manufacturer with a global, fully integrated supply chain back to our own nonene feed. Our nonene feed enables consistency throughout the whole neodecanoic acid production process, contributing to the quality and stability of our customers' end-products and derivatives. As a pure raw material acid supplier, we prove our commitment to the global neodecanoic acid market and our customers by:

- Offering a consistent and independent source of neodecanoic acid
- Supporting and collaborating with our customers in their transition away from 2-EHA.

Regulatory context: Classification and labeling (C&L)

The European Chemicals Agency (ECHA) has reclassified 2-Ethylhexanoic acid (2-EHA) and most of its salts as Reprotoxic Category 1B.

- Reclassified as Reprotoxic Category 1B as of November 2023*
- The ECHA1B rating refers to materials that are presumed to be a reproductive toxicant (H360)
- NDA Prime has a more favorable HS&E profile (not classified and no label)

Name	CASRN	EC No.	Hazard classification	Hazard phrases	Pictogram	Signal word
Neodecanoic acid	**26896-20-8**	**248-093-9**	None	None	None	None
2-Ethyl hexanoic acid	149-57-5	205-743-6	Reprotoxic Category 1B	H360D: May damage the unborn child		Warning

No C&L

*Source: Commission delegated regulation (EU) 2022/692

Key attributes

High hydrophobicity

Excellent hydrolytic stability

Enhanced heat & chemical resistance

Improved processing & compatibility

ExxonMobil NDA Prime is an ideal building block

In addition to critical applications such as metal-based catalysts for polyurethane foams, PVC heat stabilizers and alkyd paints and ink drying agents, NDA Prime can offer end-product performance benefits for:

- Wood preservatives
- Polymerization initiators (acid chloride)
- Metal extraction
- Antifreeze
- Detergents
- Rubber adhesion promoters

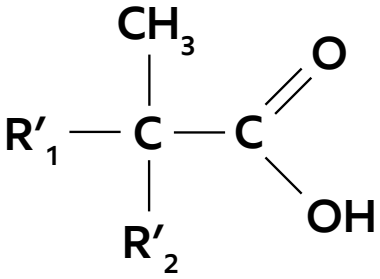
ExxonMobil NDA Prime vs. Closest competitors

Lower odor
In finished goods such as white paints and foams.

Lower color
In finished goods such as paints, inks and cosmetics.

Very stable performance in derivatives

- Metal salts: Very broad choice of metals; "universal" grade
- Catalysts: Reliable quality across the value chain



NDA Prime neo acid
R'_1, R'_2 = alkyl
$R'_1 + R'_2 = 7$ carbon atoms

Property	Sales specification	Typical properties*	Unit	Test method
Acid value	320 (min) - 330 (max)	325	mg KOH/g	ASTM D1980
Appearance	Clear, free of suspended matter	Clear, free of suspended matter	-	Visual
Boiling range	-	249-265	°C	ASTM D1078
Color, Pt-CO	30 (max)	9	-	ASTM D5386
Odor	-	Mild	-	-
Purity	-	>99.0	%	ExxonMobil test method
Pour point	-	<-40	°C	ASTM D5950
Water content	0.1 (max)	<0.1	wt%	ASTM E1064

Data from tests performed by or on behalf of ExxonMobil
*Typical properties values fluctuate over time

Fully integrated platform

Our fully integrated production of NDA Prime leverages our market-leading production volume of on-purpose nonene.

Propylene
Steam and Fluid Catalytic Cracking

Oligomerization

Branched higher olefins
Nonene

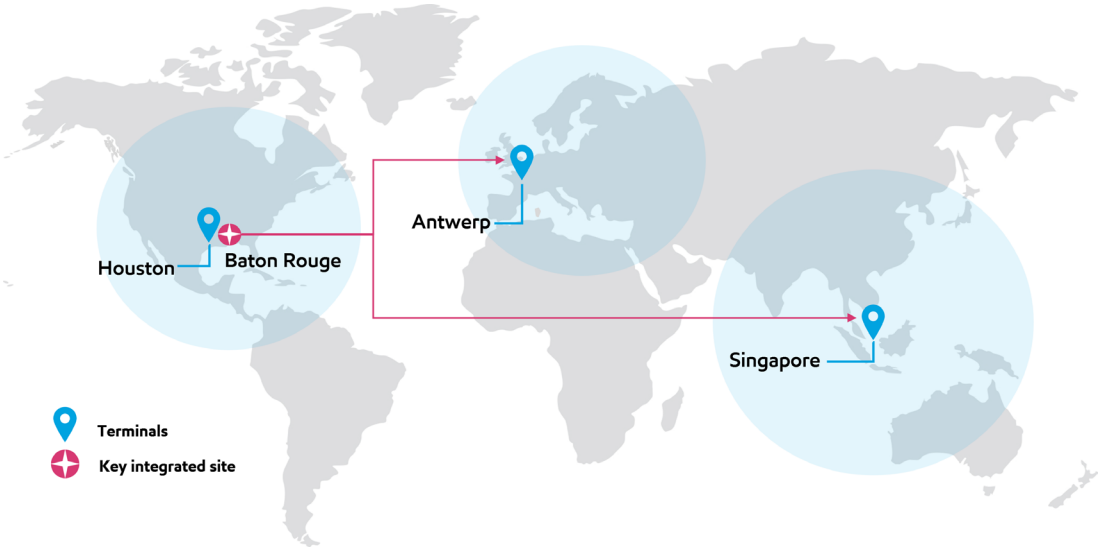
Carbonylation

NDA Prime

Global supply capability with regional responsiveness

We provide global coverage, with a world-scale **integrated petrochemical production facility located in Baton Rouge, Louisiana, USA**.

NDA Prime is available in dedicated storage tanks in **each region**.



Storage terminals
Houston, TX, USA
Antwerp, Belgium, EU
Singapore, AP

Scan for more information about ExxonMobil™ NDA Prime

ExxonMobil