

## Nonene Product Stewardship Summary

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CAS number

27215-95-8

Chemical formula

C<sub>9</sub>H<sub>18</sub>

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### What is nonene?

Nonene, also known as propylene trimer, is a branched olefin produced by the polymerisation of propylene. It is extracted from the poly gasoline that is formed in a reactor. Once separated, the nonene is treated with antioxidants, before onward shipment.

### How is nonene used?

Nonene plays an unseen, but significant role in our everyday lives. Turn on the lights in your home or start your car, for example, and you may well be relying on flexible wiring or hose made possible with the addition of nonene.

Polyvinyl chloride (PVC) is a rigid plastic that can be made flexible by the addition of a plasticiser like nonene. Once plasticised, PVC is widely used in wire and cable coatings, electrical insulation, automotive interiors and coated fabrics.

Nonene can also be used to produce other chemical intermediates such as alkyl phenols, isodecyl alcohol, neodecanoic acid, and diphenylamine. As a result, we may encounter it in detergents and cleaners, as well as in antioxidants used in crankcase lubricating oils.

### Health, Safety and Environmental considerations

Nonene is flammable. During pumping of the products a potential exists for the accumulation of a static electric charge, further increasing the risk of fire.

In general, nonene is practically non-toxic following acute oral, dermal and inhalation exposure. It is mildly to moderately irritating to the skin and eyes. As with all hydrocarbons of low viscosity, it does have the potential for producing severe, potentially fatal pneumonia (aspiration pneumonitis) if liquid is breathed into

the lungs following accidental ingestion. Inhalation of high concentrations may cause central nervous system (CNS) depression. Nonene is not classified as a carcinogen.

Nonene is acutely toxic to aquatic organisms, but is considered to be of low concern, primarily due to poor water solubility.

### **Storing and transporting linear alpha and internal olefins**

Nonene is transported by road, rail and sea. It is inhibited with trace amounts of an oxygen scavenger to prevent oxidation and maintain product quality.

### **Risk Characterization Summary**

Risks associated with exposure to this product have been evaluated for the following “chain-of-commerce” activities: manufacture, storage, product transfer, transportation, and customers/markets. Due to health, safety and environmental considerations, it is only manufactured, stored and transported to customers in closed systems. Likewise, customers are limited to those who only use the product in closed systems as an intermediate for the manufacture of other chemicals. Proper equipment design and handling procedures maintain low risk from exposure. As such, the risks associated with the product are judged to be low.

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This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the chemical’s applicable Material Safety Data Sheet, which should be consulted before use of the chemical. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.