

# Product Safety Summary



## SpectraSyn Elite™ Polyalphaolefins

This Product Safety Summary document is a high-level summary intended to provide the general public with an overview of product safety information on this chemical substance. It is not intended to provide emergency response, medical or treatment information, or to provide a discussion of all safety and health information. This document is not intended to replace the (Material) Safety Data Sheet. Warnings and handling precautions provided below are not intended to replace or supersede manufacturers' instructions and warning for their consumer products which may contain this chemical substance.

### 1. Chemical Identity

SpectraSyn Elite™ 65

SpectraSyn Elite™150

SpectraSyn Elite™300

SpectraSyn Elite™ polyalphaolefins are hydrogenated olefin oligomers manufactured by the catalytic polymerization of linear alpha olefins. PAO products are colorless liquids with well-defined, wax-free isoparaffinic structures.

**CAS No:** Various

**Chemical Name:** Branched Alkanes

### 2. Product Uses

The SpectraSyn™ polyalphaolefins are sold to lubricant manufacturers that provide a variety of industrial and consumer products including synthetic and semi-synthetic lubricants. Applications include:

- Automobile and diesel engine lubricants
- Automatic transmission fluids
- Automotive gear lubricants
- Industrial fluids such as hydraulic fluids, gear and bearing lubricants
- Greases for automotive and industrial applications.

SpectraSyn™ polyalphaolefins are not sold directly to consumers.

### 3. Physical / Chemical Properties

SpectraSyn Elite™ polyalphaolefins are not combustible or flammable, and have relatively low vapor pressures. They are chemically stable under normal conditions of handling and use. Contact with substances that are considered strong oxidizers should be avoided. It is recommended that these products be handled in areas with adequate ventilation. Excessive heat and high energy sources of ignition should be avoided. The flash point for these products are typically greater than 500°F / 260°C.

### 4. Health Information

Polyalphaolefins have been studied extensively. These materials are not considered to be hazardous to health according to regulatory guidelines. Vaporizing or aerosolizing these products should be avoided. No respiratory protection is ordinarily required under normal conditions of use and with adequate ventilation. No skin protection is ordinarily required under normal conditions of use. In accordance with

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good hygiene practices, precautions such as the use of chemical resistant gloves should be taken to avoid skin contact.

### 5. Additional Hazard Information

In the unlikely event that this product is injected into or under the skin, or into any part of the body, the individual should be evaluated immediately by a physician as a surgical emergency regardless of the appearance of the wound or its size. When used in high pressure or hydraulic applications, the initial symptoms from high pressure injection may appear to be minimal or absent. However, early surgical treatment, i.e., within the first few hours, may significantly reduce the ultimate extent of injury. Wash contact areas with soap and water.

### 6. Food Contact Regulated Uses

Appropriate manufacturing and distribution practices are employed to ensure the quality of this product when offered for use in indirect food contact applications.

### 7. Environmental Information

Biodegradability information for polyalphaolefins indicates that these substances will biodegrade slowly and will persist in the environment. It is not expected to cause short-term toxicity to fish or other aquatic organisms. Due to its low solubility in water, chronic toxicity to fish and other aquatic organisms is not expected.

### 8. Exposure Potential

Based on the uses for SpectraSyn Elite™ polyalphaolefins, the public could be exposed through:

- **Workplace exposure** – This refers to potential exposure in a manufacturing facility or through various industrial applications. Generally, exposure of personnel in manufacturing facilities is relatively low due to the predominantly enclosed nature of the process, storage and handling operations.
- **Consumer use of products containing SpectraSyn Elite™ polyalphaolefins** – These chemicals are not sold directly to the public for general consumer uses. If exposure should occur, it is likely to be infrequent and of short duration depending on the products used and the conditions under which they are used. Exposure could occur through the use of commercial lubricant formulations that contain this product. The best way to prevent exposure to vapors is to work in well-ventilated areas, wear chemical resistant gloves, and follow good personal hygiene practices.
- **Environmental releases** – As a chemical manufacturer, we are committed to operating in an environmentally responsible manner everywhere we do business. Our efforts are guided by in-depth scientific understanding of the environmental impact of our operations, as well as by the social and economic needs of the communities in which we operate. Industrial spills or releases are rare; however a spill is not expected to pose a flammability issue. Our operational improvement targets and plans are based on driving incidents with real environmental impact to zero and delivering superior environmental performance.

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### 9. Manufacture of Product

- **Process** – The process begins when Ethylene is chemically linked together (oligomerized) to create even numbered linear alpha olefins (LAO's) that range from C<sub>4</sub> to C<sub>22</sub> and higher. From this family, the appropriate LAO's are selected as the feed stream to manufacture the product. The LAO molecules are then oligomerized or "linked" to one another in the presence of a catalyst.

### 10. Risk Management

- **Workplace Risk Management** - When using this product, make sure that there is adequate ventilation. Always use chemical resistant gloves to protect your hands and skin and always wear eye protection such as chemical goggles. Do not eat, drink, or smoke where chemicals are handled, processed, or stored. Wash hands and skin following contact. If this product gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. Please refer to the (Material) Safety Data Sheet.
- **Consumer Risk Management** - This product is not sold directly to the public for general consumer uses. If exposure should occur, it is expected to be infrequent and of short duration. Always follow manufacturers' instructions, warnings and handling precautions when using their products. The best way to minimize exposure to vapors is to work in well-ventilated areas.

### 11. Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use and/or disposal of this product and may vary by city, state, country or geographic region. Additional helpful information may be found by consulting the relevant ExxonMobil Safety Data Sheet at:

<http://www.msds.exxonmobil.com/psims/psims.aspx?brand=xomcc>

### 12. Conclusion Statements

SpectraSyn Elite™ Polyalphaolefins:

- Are widely used synthetic lubricant base stock.
- Are practically non-toxic to human health and the environment.
- Are not expected to cause adverse health or environmental effects at levels typically found in the workplace or environment.

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