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

Tetramer is a branched olefin produced by the chemical linking (oligomerization) of propylene and is also commonly referred to as propylene tetramer.

- **CAS No.:** 68526-58-9  **Chemical Name:** Alkenes, C11-13, C12-rich
- **CAS No.:** 93821-12-6  **Chemical Name:** Alkenes, C10-14-branched and linear, C12-rich

**Synonyms:** Propylene tetramer, dodecene, isododecene

2. Product Uses

Tetramer is an intermediate used in the production of isotredecyl alcohol, isoparaffinic solvents, dodecylphenol, and dodecyl mercaptan which are used to produce plasticizers, surfactants, coating components, lubricant additives, and polymerization agents. Tetramer is not sold directly to the public for general consumer uses.

3. Physical / Chemical Properties

Tetramer is a combustible material primarily used in industrial settings. It has a high vapor pressure, and should be handled only with adequate ventilation and in areas without any ignition source present (e.g. no open flames, static electricity sources, or unprotected light switches).

The flash point for Tetramer is approximately 136°F /58°C.

4. Health Information

Tetramer is generally recognized to have low acute and chronic toxicity. Vapor or aerosol concentrations above the occupational exposure limit of 350 mg/m³ in the air can cause eye and lung irritation and may cause headaches, dizziness or drowsiness. Prolonged or repeated skin contact in an occupational setting may result in irritation and in these situations, the use of chemical resistant gloves is recommended. Tetramer is not regarded as a mutagen or carcinogen, and there is low concern for reproductive, developmental, or nervous system toxic effects.

5. Additional Hazard Information

If accidentally swallowed, small amounts of liquid may be aspirated into the lungs during ingestion or from vomiting which may cause severe lung inflammation and lung edema (an accumulation of fluid in the lungs). This is a medical emergency which must be immediately and properly treated.
6. Food Contact Regulated Uses

Tetramer is not claimed as compliant for food contact uses.

7. Environmental Information

Tetramer, if accidentally spilled in the environment, is not expected to cause toxicity to aquatic organisms (e.g. fish and invertebrates). Chronic aquatic toxicity is not expected because it biodegrades at a moderate rate and will not persist in the environment. Tetramer is a volatile organic compound (VOC) and is expected to degrade rapidly in air. Considerable measures are taken to prevent its release to the atmosphere and minimize any exposure to the environment from manufacturing and use activities.

8. Exposure Potential

Based on the uses for Tetramer, the public could be exposed through:

- **Workplace exposure** – This refers to potential exposure to Tetramer in a manufacturing facility or through evaporation in various industrial applications. Generally, exposure of personnel in manufacturing facilities is relatively low because the process, storage and handling operations are enclosed. The ExxonMobil recommended occupational exposure limit (OEL) is 350 mg/m³ per 8-hour work day.

- **Consumer use of products manufactured from Tetramer** – This chemical is not sold directly to the public for general consumer uses. As a result of its use in industrial chemical reactions, consumer exposure is highly unlikely. If exposure should occur, it is expected to be infrequent and of short duration.

- **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 may pose a significant flammability issue. Our operational improvement targets and plans are based on driving incidents with real environmental impact to zero and delivering superior environmental performance.

9. Manufacture of Product

- **Capacity** – Publicly available sources report total global production capacity of Tetramer is on the order of 400 kT (900 million pounds).

- **Process** – Tetramer is produced from oligomerization of propylene (linked together chemically). The product contains several isomeric olefins with varying degrees of branching and different positions of the double bond.
10. Risk Management

- **Workplace Risk Management** - When using this chemical, make sure that there is adequate ventilation. If controls do not maintain air concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. 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 this chemical is handled, processed, or stored. Wash hands and skin following contact. If this chemical gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. Please refer to the Safety Data Sheet.

- **Consumer Risk Management** - This chemical is not sold directly to the public for general consumer uses. As a result of its use in industrial chemical reactions, consumer exposure is highly unlikely. 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 chemical 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:


12. Conclusion Statements

- Tetramer is a widely used industrial chemical intermediate
- Tetramer is low in toxicity; however it may cause lung damage if swallowed.
- Tetramer does not cause adverse health or environmental effects at levels typically found in the workplace or environment.
- Tetramer is flammable; use only with good ventilation; avoid all ignition sources.

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