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

Benzene is an organic compound with the molecular formula C6H6

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Chemical Name:</th>
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<tr>
<td>71-43-2</td>
<td>benzene</td>
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2. Product Uses

The vast majority of benzene is consumed in the production of three chemicals: ethylbenzene (precursor to styrene/polystyrene), cumene (precursor to phenol/polycarbonate), and cyclohexane (precursor to nylon). Benzene is not sold directly to the consumer.

3. Physical / Chemical Properties

Benzene is a clear, colorless, volatile liquid at room temperature. Benzene is flammable; it should be handled only with adequate ventilation and in areas where ignition sources have been removed (e.g. open flames, static electricity sources, unprotected light switches). The flash point is >120°F (-11°C).

4. Health Information

Direct contact with benzene can cause skin and eye irritation. Exposure to benzene is associated with cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders.

5. Additional Hazard Information

If accidentally swallowed, small amounts of liquid may be aspirated into the lungs during ingestion or from vomiting, this 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

This product is not claimed as compliant for food contact uses.

7. Environmental Information

Benzene is readily biodegradable and will not persist or bioaccumulate in the environment. Because of its volatility (tendency to move from water and soil into the air), benzene that accidentally gets into the water and soil environments is expected to evaporate into the air, where it is quickly degraded and broken down. Since benzene has a tendency to move rapidly from soil and water to air, residual concentrations in the soil and aquatic habitats will be short-lived and chronic toxicity is not expected. Considerable measures are
taken to prevent its release to the atmosphere, soil or water and to minimize any exposure to the environment from manufacturing and use activities.

8. Exposure Potential

- **Workplace exposure** – This refers to potential exposure 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 0.5 parts per million (ppm) per an 8-hour work day. A Short Term Exposure Limit (STEL) of 1 ppm is recommended.
- **Consumer use of products containing Benzene** – Benzene is not sold by ExxonMobil directly to the public for consumer use. The general population can be exposed to benzene in ambient air containing low levels of benzene from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions. Tobacco smoke is the major source of benzene exposure in non-occupational settings.
- **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 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** – Global production capacity is typically greater than 50 MT

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, flush eyes thoroughly with tap water. If irritation occurs, get medical assistance. Please refer to the (Material) Safety Data Sheet.
- **Consumer Risk Management** - This chemical is not sold by ExxonMobil directly to the public for general consumer uses. For consumer products that may contain benzene, always follow manufacturers’ instructions, warnings and handling precautions to minimize exposures.

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](http://www.msds.exxonmobil.com)

12. Conclusion Statements

Benzene
Benzene

- is a widely used chemical intermediate in industrial reactions and not sold directly to the public
- is associated with causing cancer and blood disorders
- is not expected to cause adverse environmental effects at levels typically found in the workplace or environment
- should only be used with good ventilation; avoiding all ignition sources.

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