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## Product Safety Summary Sheet

### DuPont™ o-Phenylenediamine

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#### Chemical Identification, Product Identification or Common Name:

CAS number (EC inventory): 95-54-5

CAS Index name: 1,2-Benzenediamine (o-Phenylenediamine)

EC Number: 202-430-6

IUPAC name: Benzene-1,2-diamine

#### Product Uses and Applications:

o-Phenylenediamine is used as a chemical intermediate in the synthesis of pigments.

#### Physical Properties of the Chemical or Product:

o-Phenylenediamine is a solid at room temperature, with a slight aromatic odor.

o-Phenylenediamine has a boiling point of 256 °C and a melting point of 101 °C.

#### Exposure Potential:

**Workplace exposure:** Workers should follow the recommended safety measures contained within the Safety Data Sheet (SDS) and on any product packaging. Employees should be trained in the appropriate work processes and safety equipment to limit unnecessary exposure to chemical substances. Occupational use of this substance is considered to be safe provided the recommended safety measures in the SDS are followed. Occupational exposure may occur through inhalation.

**Consumer exposure:** No known exposure to consumers is expected once o-Phenylenediamine is reacted to form another organic chemical.

**Environmental exposure:** Exposure to the environment is not expected during the usage of o-Phenylenediamine as a precursor for other organic chemicals. o-Phenylenediamine is handled within closed systems by industrial processors.

**Health Information:**

*Note: The information contained in this section may be useful to someone handling the pure undiluted substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the pure substance. For more information on health hazards and recommended protective equipment, please refer to the SDS.*

Exposures may affect human health as follows:

Effect Assessment	Result
Acute Toxicity	Oral: Moderately toxic by ingestion. Dermal: Moderately toxic via exposure to skin. Inhalation: Moderately toxic by inhalation.
Irritation	Skin: May cause skin irritation, discomfort, itching, redness, or swelling. Eye: Causes eye irritation; may cause irritation with discomfort, pain, tearing, swelling, redness, or temporary visual impairment. Respiratory tract: may cause irritation of the respiratory system.
Sensitization	May cause an allergic skin reaction in susceptible persons by skin contact, with itching, rash, or swelling.
Mutagenicity	Caused genetic damage in cultured bacterial and animal cells.
Carcinogenicity	Limited evidence of carcinogenic effect in experimental animals.
Toxicity after repeated exposure	No significant toxicity anticipated as a result of repeated exposures.
Toxicity to Reproduction/Development	No data.

**Environmental Information:**

*Note: The information contained in this section is intended to provide brief and general information of this substance's environmental impact. The results in the table below refer to testing performed with the non-formulated, undiluted substance. The data does not replace the data given in the SDS. For more information and recommended protective measures please refer to the SDS.*

Effect Assessment	Result
Aquatic Toxicity	Very toxic to aquatic life with long-lasting effects.
Persistence and degradability	No data. No data.
Bioaccumulation potential	No data.

**Risk Management:**

Based on the closed system characteristics employed, there are no significant exposures to o-Phenylenediamine expected during manufacturing and polymerization uses.

**Workplace Management:**

Risk management measures for industrial site use include containment through engineering controls and personal protective equipment (PPE). Always refer to the Safety Data Sheet (SDS) for guidance on the appropriate personal protective equipment to be used.

The substance is of no immediate concern to workers. But, a full face mask and other appropriate PPE should always be used for any operations that might result in exposure to workers.

**Consumer Risk Management:**

Consumer exposure to o-Phenylenediamine is unlikely. Avoid inhalation or skin contact with o-Phenylenediamine.

**Regulatory Information:**

Always refer to the Safety Data Sheet (SDS) for guidance on regulatory restrictions that may govern the manufacture, sale, transportation, use and/or disposal of this chemical or product. Regulations may vary by region, country, state, county, city, or local government. Consult environmental agencies for guidance on acceptable disposal practices.

**First Aid Information:**

For all First Aid or Emergency information, consult the Safety Data Sheet (SDS).

**Information Sources:**

Data is compiled from a variety of sources, including publicly available documents, internal data and other sources such as, but not limited to, Chemical Safety Reports and Safety Data Sheets (SDS).

**Contact Information:**

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