

Product Safety Summary Sheet

DuPont Tate & Lyle BioProducts™ 1,3-Propanediol

Chemical Identification, Product Identification or Common Name:

CAS number: 504-63-2

CAS name: 1,3-Propanediol

EC Number: 207-997-3

IUPAC name: propane-1,3-diol

Product Uses and Applications:

This chemical or product is generally used as an industrial building block for producing polymers and composite materials. Many products that may also contain 1,3-Propanediol include adhesives, sealants, laminates, coatings, paints, perfumes, fragrances, personal care products and laboratory-scale chemicals.

Physical Properties of the Chemical or Product:

1,3-Propanediol is a colorless liquid with a freezing point of -24°C and a boiling point of 214°C.

The substance is non-flammable and non-explosive, and is considered stable at normal temperatures and storage conditions.

Exposure Potential:

Workplace exposure:

1,3-Propanediol is typically used in processes with proper controls to minimize potential exposures to workers as well as to the environment. Workers should follow the recommended safety measures contained within the (Material) Safety Data Sheet ((M)SDS) and on any product packaging. Employees should be trained in the appropriate work processes and safety equipment to limit exposure to chemical substances. Occupational use of this substance is considered to be safe provided the recommended safety measures given in the (M)SDS are followed.

Consumer exposure:

1,3-Propanediol is of no immediate concern to humans indirectly exposed via the environment. In formulated products designed for consumer use, such as coatings and paints, adhesives, sealants, lubricants, and waxes, 1,3-Propanediol is of low concern for human exposure.

Environmental exposure:

By utilizing closed processes with proper exposure controls, potential exposures to workers are minimized, and exposures to the environment (air, water) are relatively low. Equipment design, engineering controls and worker training reduce the discharge of 1,3-Propanediol to the environment. Treatment, storage, transportation, and disposal of 1,3-Propanediol must be in accordance with applicable federal, state and local regulations.

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 (M)SDS.

Exposures may affect human health as follows:

Effect Assessment	Result
Acute Toxicity	Oral: Low toxicity. Dermal: Low toxicity. Inhalation: Low toxicity.
Irritation	Skin: Not irritating. Eye: Not irritating.
Sensitization	Not sensitizing.
Mutagenicity	Not mutagenic.
Carcinogenicity	Not carcinogenic.
Toxicity after repeated exposure	No long term toxicity.
Toxicity for reproduction	Not a reproductive toxin.

Environmental Information

Note: The information 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 (M)SDS. For more information and recommended protective measures, please refer to the (M)SDS.

Effect Assessment	Result
Aquatic Toxicity	Very low toxicity to aquatic species.
Biodegradability	Readily biodegradable.
Persistence	Not persistent.
Bioaccumulation potential	Not bioaccumulative.

Risk Management

Workplace Management:

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

Consumer Risk Management:

Since only limited indirect exposure to the concentrated 1,3-propanediol via the environment is expected and 1,3-propanediol has a favorable toxicological profile, there are no specific risk management measures applicable. For formulated end-use products, consumers should always follow manufacturer's instructions for the safe handling of products containing this chemical. Always read the product labels prior to use.

Regulatory Information:

Always refer to the (Material) Safety Data Sheet ((M)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 or province, county, city, or local government.

First Aid Information:

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

Contact Information:

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