

Global Product Strategy (GPS) Safety Summary

Phenyl Ethyl Alcohol

This GPS Safety Summary 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, nor to provide an overview of all safety and health information. This summary is not intended to replace the Safety Data Sheet. For detailed guidance on the use or regulatory status of this substance, please consult the Safety Data Sheet.

Chemical Identity

Name: Phenyl Ethyl Alcohol
Brand names: Phenyl Ethyl Alcohol
Chemical name (IUPAC): 2-Phenylethanol
CAS number: 60-12-8
EC number: 200-456-2
Molecular formula: C₈H₁₀O

Uses and Applications

Phenyl ethyl alcohol is widely found in nature in a variety of essential oils including the extracts of rose, carnation, hyacinth, orange blossom and others. It has a pleasant floral, rose-like odor and is therefore used in flavors and fragrances where the scent of rose is desired. Additionally it is stable in alkaline conditions, making it desirable for use in soaps.

Physical / Chemical Properties

At ambient temperature phenyl ethyl alcohol is a colorless liquid with a floral aroma. The substance is not considered flammable. The flash point for phenyl ethyl alcohol is 96°C (205°F). The boiling and freezing points of phenyl ethyl alcohol are 220°C (428°F) and -27°C (-17°F) respectively.

Phenyl ethyl alcohol has not been classified as hazardous under GHS (Globally Harmonized System on Classification and Labeling) for flammability.

Health Effects

Phenyl ethyl alcohol has been classified under GHS as hazardous for acute ingestion toxicity, eye irritation, single exposure narcotic effects and for suspected damage to the unborn child.

The table below gives an overview of the health effects assessment results for Phenyl ethyl alcohol.

Effect Assessment	Result
Acute Toxicity Oral / inhalation / dermal	Acutely toxic via the oral route of exposure. Harmful if swallowed. Ingestion may result in irritation of the mouth and digestive tract. Single exposure to high oral doses may cause drowsiness or dizziness. Low concern for toxicity via the dermal and inhalation routes.
Irritation / corrosion Skin / eye/ respiratory tract	Causes eye irritation and may cause mild skin irritation.
Sensitization	Not a sensitizer.
Toxicity after repeated exposure Oral / inhalation / dermal	Low concern for repeated exposure systemic toxicity.
Genotoxicity / Mutagenicity	Not mutagenic/genotoxic.
Carcinogenicity	Low concern for cancer.
Toxicity for reproduction	Not toxic to fertility. May be toxic to embryo/fetal development.

Environmental Effects

Phenyl ethyl alcohol has low toxicity to aquatic life and has therefore not been classified under GHS as hazardous.

The table below gives an overview of the environmental assessment results for Phenyl ethyl alcohol.

Effect Assessment	Result
Aquatic Toxicity	Low toxicity to aquatic life

Fate and behaviour	Result
Biodegradation	Rapidly biodegradable
Bioaccumulation potential	Not bioaccumulative
PBT / vPvB conclusion	Not considered to be either PBT nor vPvB.

PBT = Persistent, Bio-accumulative and Toxic in the environment.
vPvB = very Persistent and very Bio-accumulative in the environment.

Exposure

Human health

When using a phenyl ethyl alcohol containing consumer product at home, all instructions and precautions should be read, understood and followed.

Exposure to phenyl ethyl alcohol of personnel in manufacturing facilities is considered very low because the process, storage and handling operations are enclosed. It is not used in a widespread

or dispersive manner. Also, transfer (loading and transport) of phenyl ethyl alcohol is done with dedicated equipment in dedicated containers to prevent any release from the system. However, worker exposure can potentially occur during operations such as product transfer, product sampling, or maintenance / repair activities on product containing systems. The risk of accidental exposure should be controlled by selecting and applying the appropriate Risk Management Measures.

Environment

The manufacture of phenyl ethyl alcohol is in a closed and automated process with no aqueous effluent or gaseous effluent released to the environment. Also, transfer (loading and transport) of phenyl ethyl alcohol is conducted with dedicated equipment in dedicated containers to prevent any release from the system.

Risk Management Measures

For detailed guidance on the use of phenyl ethyl alcohol, the Safety Data Sheet should be consulted.

Phenyl ethyl alcohol should be handled only by knowledgeable and trained personnel.

Flammability

Although not considered flammable, heat from fire can generate flammable vapor. All equipment used when handling this product must be grounded.

Human health

When using chemicals make sure that there is adequate ventilation. Always use appropriate chemical-resistant gloves to protect your hands and skin, always wear eye protection such as chemical goggles and always wear flame-retardant clothing. Do not eat, drink, or smoke where chemicals are handled, processed, or stored. Wash hands and skin following contact. If the substance gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention.

In the case of transfer or maintenance operations, always clear transfer lines prior to decoupling, and flush/drain to a closed system for recycle prior to opening equipment.

In cases where engineering controls cannot maintain airborne substance concentrations below exposure limits, or in cases with a risk of accidental exposure, additional risk management measures may be necessary for safe use, such as the use of a complete suit protecting against chemicals and supplied air, a self-contained breathing apparatus or respirator.

Environmental

In case of accidental release or spill, do not allow the product to enter sewers, surface or ground water.

Regulatory Information / Classification and Labeling

Under GHS (Globally Harmonized System on Classification and Labeling) substances are classified according to their physical, health and environmental hazards. The hazards are communicated via specific labels on the product packaging and the Safety Data Sheet. GHS attempts to standardize hazard communication so that the intended audience (workers, consumers, transport workers, and emergency responders) can better understand the hazards of the chemicals in use.

For a detailed overview of the classification and labeling of this substance, please refer to the regional Safety Data Sheet, which can be found on the LyondellBasell corporate website.

Conclusion Statements

- Phenyl ethyl alcohol is used in cosmetics and personal care products where a rose-like scent is desired.
- Phenyl ethyl alcohol has been classified as hazardous. The main hazards are harmful if swallowed, eye irritation, single exposure narcotic effects (at high oral doses) and suspected damage to the unborn child.
- Exposure to human health and environment is considered very low as the phenyl ethyl alcohol manufacturing process, storage and handling operations are enclosed.

Contact Information within Company

For further information on this product in general, please consult the LyondellBasell corporate website (www.lyb.com).

Date of issue

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Disclaimer

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Users should review the applicable Safety Data Sheet before handling the product.

Phenyl Ethyl Alcohol is a product of Lyondell Chemical Company.