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Date: 03 / 14 / 2024

Version: 2

Cancels and replaces version: 1

SECTION 1. IDENTIFICATION

Product Name/Identifier Propylene Glycol
Product Code FSS00038

Recommended Use Excipient
Restrictions on Use Not available

Supplier Site Formulator Sample Shop
Address 135 Joshua Court
Lincolnton, NC 28092, USA

Telephone No. (24hrs) 1-704-276-7540

Emergency Telephone # 1-704-276-7540 (Mon-Fri: 8:00AM – 5:00PM EST)

SECTION 2. HAZARD(S) IDENTIFICATION**Classification:****GHS / CLP**

Basis for Classification: Based on present data no classification and labeling is required according to GHS, taking into account the national implementation (United Nations version 2011)

USA

OSHA Regulatory Status: This material is non-hazardous as defined by the American OSHA Hazard Communication Standard (29 CFR 1910.1200).

Europe

Basis for Classification: -According to present data no classification and labeling is required according to Reg. (EC) No 1272/2008.
-This product is not classified as hazardous to health or environment according to the CLP regulation.

Labeling Elements:

Pictograph: No hazard symbol expected

Hazard statements/Signal Word: Not applicable

Precautionary statements: P233: Keep container tightly closed
P281: Use personal protective equipment as required
P402: Store in a dry place
P404: Store in a closed container
P410: Protect from sunlight
P411: Store at temperatures not exceeding 32°C

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Other hazards which do not result in classification:

No particular fire or explosion hazard.

By mechanical effect: No particular hazards.

By hydroscopic effect: No particular hazards.

US NFPA 704 (National Fire Protection Association) Hazard Rating System:

Health hazard: Rating 0; Normal Material

Flammability: Rating 1; Materials that must be preheated before ignition will occur

Reactivity: Rating 0; Stable

Other Hazard Information: None

Results of PBT and vPvB assessment:

-PBT: Not applicable

-vPvB: Not applicable

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS**Common Chemical Name:** Propylene Glycol**Chemical Family:** Glycols**Description:** Mixture: consisting of the following components. This section describes all components of the mixture

<u>Substance</u>	<u>CAS Numbers</u>	<u>EC Numbers</u>	<u>Percentage</u>
Propylene Glycol	57-55-6	200-338-0	99.50%
Water	7732-18-5	231-791-2	0.20%

Molecular Formula: C₃H₈O₂**SECTION 4. FIRST-AID MEASURES****General:** In all cases of doubt, or when symptoms persist, seek medical attention.**Inhalation:** Move to fresh air from exposure area. Get medical attention for any breathing difficulty.**Skin contact:** Rinse thoroughly with soap and warm water. Get medical advice if irritation develops.**Eye contact:** Immediately rinse with plenty of water for at least 15 minutes, while also washing under the eyelids. Consult with a physician if symptoms persists.**Ingestion:** Clean mouth with water and afterwards drink plenty of water.**Protection of first-aiders:** No special protection required.

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Most Important symptoms and affects, both acute and delayed:

Inhalation:	Avoid breathing vapors or mist. Inhalation of aerosol may cause irritation to respiratory tract.
Skin contact:	May cause slight skin irritation. Repeated exposure may cause skin dryness or cracking. Contact with product at elevated temperatures can result in thermal burns.
Eye contact:	Contact with eyes may cause irritation.
Ingestion:	Health injuries are not known or expected under normal use. May be harmful if swallowed (dependent on amounts).
Notes to Physician:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Fire and explosion hazards: Material may pose fire hazard because it is dispersed (or spread) by water.

Extinguishing media:

Suitable: Dry powder, alcohol-resistant foam and carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Not suitable: Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture:

Hazardous combustion products: Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO) and Carbon dioxide (CO₂).

Hazards arising from the chemical: Vapors are heavier than air and may spread along floors. The pressure in sealed containers can increase under the influence of heat. Fire or intense heat may cause violent rupture of packages.

Fire fighting: Move container from fire area if it can be done without risk.
Avoid inhalation of material or combustion by-products.
Stay upwind and keep out of low area

Protection for fire-fighters: Boots, gloves, goggles and self-contained breathing apparatus.

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SECTION 6. ACCIDENTAL RELEASE MEASURES**Personal precautions:**

Avoid contact with eyes.

Personal Protective Equipment:

-Protective goggles

Ensure adequate ventilation.

Environmental precautions:

Avoid high pressure washing or generation of aerosols.

Prevent entry into sewers and waterways. Do not allow material to contaminate ground water system

Methods for cleaning up:

Recovery:

Pick up free liquid and transfer to properly labelled containers for recycling or disposal. Residual liquid can be absorbed on an inert material.

Cleaning/Decontamination:

Clean contaminated surface thoroughly.

Disposal:

For disposal of residues refer to sections 8 & 13.

SECTION 7. HANDLING AND STORAGE**Handling**

Technical measures:

Labeling: Keep out of the reach of children.

Measures:

For industrial use, only as directed. Ensure adequate ventilation

Safe handling advice:

Wash hands after use. Avoid storage near feed or food stuff.

Storage

Technical measures:

Keep container dry and tightly closed to avoid moisture absorption and contamination.

Recommended Storage Conditions:

Store at temperatures not exceeding 40°C / 104°F. To maintain product quality, do not store in heat or direct sunlight.

Incompatible products:

Avoid contact with strong oxidizers.

Refer to the detailed list of incompatible materials (Section 10 Stability/Reactivity)

Packaging:

Product may be packaged in normal commercial packaging.

Packaging materials:

Recommended - Polypropylene & High Density Polyethylene

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Precautionary statements:**

Ensure adequate ventilation, especially in confined areas.

Control parameters

Exposure Limits:

This product is not known to contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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Personal Protective Equipment:

Respiratory protection:	In case of mist, spray or aerosol exposure wear suitable protection.
Hand protection:	Protective gloves made of rubber or neoprene.
Eye protection:	Safety glasses with side-shields. If splashes are likely to occur, wear goggles.
Collective emergency equipment:	Eye fountain.
Skin and Body Protection:	Suitable protective clothing
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke.

Measures related to the Environment: No particular measures.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless
Physical state:	Viscous liquid
Odor:	Characteristic
pH:	~ 7
Specific Gravity:	1.035 – 1.037
Vapor density:	2.6 (Air = 1.0)
Boiling Point (760 torr):	~ 188°C / 370°F
Melting/Freezing Point:	~ -60°C / -76°F
Flash point (Cleveland Open Cup):	99°C / 210°F
Auto-ignition temperature:	371°C / 700°F
Molecular Weight:	76.09 g/mol
Evaporation Rate:	< 0.01 [Butyl acetate = 1.0]
Solubility:	
In water:	Miscible
In essential oils:	Soluble
Acetone and Chloroform:	Miscible
Fixed oils:	Immiscible
In organic solvents:	Not determined
Partition Coefficient (log Kow):	-1.07

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SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage up to one year then re-test to full product specifications to extend shelf life
Hazardous reactions:	Hazardous polymerization does not occur.
Conditions to avoid:	Avoid extreme temperatures and direct sunlight.
Materials to avoid:	No dangerous reaction known with common products.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO), Carbon dioxide (CO ₂)

SECTION 11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects:**

Acute Toxicity:	Based on available data, the classification criteria are not met
LD ₅₀ (Oral, Rat):	20,000 mg/kg
LD ₅₀ (Dermal, Rabbit):	20,800 mg/kg
LC ₅₀ (Air, Rabbit):	> 317,042 mg/m ³

Skin Corrosion/Irritation:	Based on available data, the classification criteria are not met
Serious Eye Damage/Eye Irritation:	Based on available data, the classification criteria are not met
Respiratory or Skin Sensitization:	Based on available data, the classification criteria are not met

Germ Cell Mutagenicity:	Based on available data, the classification criteria are not met
Carcinogenicity:	Based on available data, the classification criteria are not met
Reproductive Toxicity:	Based on available data, the classification criteria are not met
STOT – Single Exposure:	Based on available data, the classification criteria are not met
STOT – Repeated Exposure:	Based on available data, the classification criteria are not met
Aspiration Hazard:	Based on available data, the classification criteria are not met

Potential Health Effects:

Ingestion:	Health injuries are not known or expected under normal use. May be harmful if swallowed (dependent on amounts).
Skin:	May cause slight skin irritation. Repeated exposure may cause skin dryness or cracking. Contact with product at elevated temperatures can result in thermal burns.
Eyes:	Contact with eyes may cause irritation.
Inhalation:	Avoid breathing vapors or mist. Inhalation of aerosol may cause irritation to respiratory tract.

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity:**EC₅₀ (Pseudokirchneriella subcapitata, 96H): 19,000 mg/LLC₅₀ (Oncorhynchus mykiss static, 96H): 40,613 mg/LEC₅₀ (Skelettonema costatum, 96H): 19,100 mg/L

Daphnia (Water Flea): NOEC > 20,000 mg/L

Biodegradability:

Readily biodegradable

PBT and vPvB Assessment:

No information available

Mobility:

Miscible with water

Other Adverse Effects:

None known

SECTION 13. DISPOSAL CONSIDERATIONS**Residues from product**

Prohibition: Do not allow the product to be released into the Environment.
Destruction/Disposal: Dispose of in accordance with relevant local regulations

Contaminated packaging

Decontamination/cleaning: Cleaning is not required prior to disposal.
Destruction/Disposal:

Note: Take all necessary precautions when disposing of this product according to local regulations.

SECTION 14. TRANSPORT INFORMATION**UN Number:** None**UN Shipping Name:** None**Transport Hazard Class:** Not regulated

Land (rail/road): Material is not restrictive for land transport and is not regulated by ADR/RID
Sea: Material is not restrictive for sea transport and is not regulated by IMO/IMDG
Air: Material is not restrictive for air transport and is not regulated by ICAO/IATA

Marine Pollutant: No

Transport/Additional Information: Not regulated for US DOT Transport in non-bulk containers
This material is not dangerous or hazardous

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Special Precautions for User: None known

The above regulatory prescriptions are those valid on the date of publication of this sheet. However, given the possible evolution of transport regulations for hazardous materials and in the event of the MSDS in your possession dating back more than 12 months, it is advisable to check their validity with your sales office.

SECTION 15. REGULATORY INFORMATION

Labeling:

EC regulations: This product does not need to be labeled in accordance with EC Directives or respective national laws

Further regulations

United Kingdom: Handle in accordance with relevant British regulation: control of substance Hazardous to Health Regulations Environmental Hygiene Guidance: EH40
Workplace Exposure Limits (revised annually)

Korea regulations: Industrial safety and hygiene regulation: No
Hazardous material control regulation: No
Fire prevention regulation: No

Other regulations:

EINECS inventory status:	Propylene Glycol:	200-338-0
	Aqua:	231-791-2
TSCA inventory status:	Exempt	
AICS inventory status:	57-55-6 & 7732-18-5	
Canadian (CEPA DSL) inventory status:	Listed as 1,2-Propanediol (DSL) & Water (DSL)	
Japan (MITI list):	Propylene Glycol & Water	
Korea:	Propylene Glycol & Water	
China inventory status:	Propylene Glycol & Water	
Philippines inventory status:	Listed as 1,2-Propanediol & Water	

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the products described in this sheet. The user's attention is drawn to the possible existence of additional provision which complete these regulations. Please refer to all applicable international, national and local regulations and provisions

SECTION 16. OTHER INFORMATION

Prohibited uses: For specific uses, food industry, ask the manufacturer for more information.

Last Revision Date: 03/14/2024

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MSDS summary of changes

Revision to date, updated Section 9

The information given is based on our knowledge of this product, at the time of publication in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than which it was intended. This is not in any way excuse the user from knowing and applying all the regulations governing their activity. It is sole responsibility of the user to take all precautions required in handling the product. The purpose of mandatory regulation mentioned is to help the user to fulfill his obligations regarding the use of products. This information is not exhaustive, this is not exonerate the user from ensuring that legal obligations other than those mentioned, relating to the use and storage.