

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Liquid Germall Plus Preservative
INCI name	:	Propylene Glycol (and) Diazolidinyl Urea (and) Iodopropynyl Butylcarbamate
CAS #	:	57-55-6; 78491-02-8; 55406-53-6
Country of Origin	:	USA
Product use	:	Domestic and Industrial
Supplier	:	New Directions Aromatics Inc.
Address	:	6781 Columbus Road, Mississauga, Ontario, CANADA L5T 2G9
Fax	:	905-362-1926
Telephone number	:	905-362-1915
Emergency phone number	:	(613)-996-6666 CANUTEC 24 HOUR EMERGENCY

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification

Eye Irritation-Category 2A

Skin sensitization-Category 1

GHS Label elements, including precautionary statements

Signal: Warning

Hazard statement(s)

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Precautionary statement(s)

P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION INGREDIENTS

Product Name	CAS NO	EC NO	Concentration
Propylene Glycol	57-55-6	-	30 - 100 %
Diazolidinyl Urea	78491-02-8	-	30 - 100 %
3-Iodo-2-propynyl butyl carbamate	55406-53-6	-	0.3 - 1 %

4. FIRST AID MEASURES

Eye contact

Immediately flush eyes with plenty of cool water for at least 15 minutes. Remove contact lenses. Protect unharmed eye. Get medical attention if irritation occurs.

Skin contact

Remove contaminated clothing. Wash area with soap and water. If irritation occurs, get medical attention. Wash contaminated clothing before reuse.

Inhalation

If inhaled, removed to fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

Ingestion

Seek medical attention or contact local poison control center. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Water spray. Foam. Dry powder. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media

High volume water jet.

Special protective equipment and precautions for fire-fighters

Wear proper protective equipment. Wear self-contained breathing apparatus. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

Special hazards arising from the substance or its combustible products

If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Do not allow run-off from fire fighting to enter drains or water courses. Hazardous decomposition products formed at extreme heat or if burned include carbon dioxide and carbon monoxide and organic compounds formed.

Resulting gases

Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures.

Equip clean crew with proper protection. Respiratory protection equipment may be necessary. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use suitable disposal containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Do not breathe vapours/dust. Do not smoke. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Container hazardous when empty. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations. Handle in accordance with good industrial hygiene and safety procedures.

Conditions for safe storage, including any incompatibilities

Protect from frost. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eyes

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin

Wear as appropriate: Impervious clothing Safety shoes Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear. Wear resistant gloves (consult your safety equipment supplier). Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier).

Respiratory

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release.

Ingestion

Not for ingestion.

Exposure limit values

PROPYLENE GLYCOL: TWA: 50 ppm (Vapour and aerosols)
TWA: 10 mg/m³ (aerosols)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Colorless viscous liquid.
Odor	:	Characteristic odor.
Melting Point/Freezing Point	:	-63.89°C FP
Initial b.p and boiling range	:	192.22°C
Flash point	:	98.89°C
Vapor pressure	:	0.09576 hPa @ 20 °C
Relative density	:	1.15 to 1.25 g/cm ³ @20°C
Solubility (ies)	:	Soluble in water.

10. STABILITY AND REACTIVITY

Reactivity

This material presents no significant reactivity hazard.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to avoid

Avoid excessive heat, exposure to sunlight and exposure to moisture .

Incompatible materials

Isocyanates, Strong acids, strong bases, strong oxidizing agents, UV light.

Hazardous decomposition products

Alcohols, aldehydes, carbon dioxide, carbon monoxide, dioxolanes, ethers, organic acids.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Propylene glycol:

Acute oral toxicity : LD50 (Rat): 22,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Diazolidinyl urea:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

3-Iodo-2-propynyl butyl carbamate:

Acute oral toxicity : LD50 (Rat): 1,153 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.327 mg/l

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Carcinogenicity

Not classified based on available information.

Mutagenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

Skin corrosion

Not classified based on available information, however, may cause skin irritation in susceptible persons.

Serious eye damage

Vapours may cause irritation to the eye, respiratory system and the skin. Causes serious eye irritation.

Single exposure

STOT: Not classified based on available information.

Repeated exposure

STOT: Not classified based on available information.

Aspiration hazard

Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute aquatic toxicity Category 2 - Toxic to aquatic life.

Chronic aquatic toxicity Category 2 - Toxic to aquatic life with long lasting effects.

Persistence and degradability

Biodegradability:

Propylene glycol: Readily biodegradable.

Diazolidinyl urea: Not readily biodegradable.

Bio - accumulative potential

Propylene glycol: Partition coefficient: n-octanol/water : log Pow: -0.92

Diazolidinyl urea: Partition coefficient: n-octanol/water : log Pow: 0.9 (20 °C)

3-Iodo-2-propynyl butyl carbamate: Partition coefficient: n-octanol/water : log Pow: 2.81

Remarks: Bio-accumulation is unlikely.

Mobility in soil

Diazolidinyl urea: Distribution among environmental compartments: Adsorption/Soil Medium: Soil Koc: < 2

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATION

General advice : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty container

14. TRANSPORT INFORMATION

US DOT Shipping Description (Land)

Not regulated

IMO-IMDG Shipping Description (Sea)

Not regulated

IATA Shipping Description (Air)

Not regulated

15. REGULATORY INFORMATION

DSL / NDSL

All the ingredients are on the DSL list.

TSCA

On TSCA inventory.

GHS Hazard Statements

Refer to Section 2.

GHS Precautionary Statements

Refer to Section 2.

16. OTHER INFORMATION

Revision date : April 22,2022

Disclaimer & Caution

Please refer to all relevant technical information specific to the product, prior to use. The information contained in this document is obtained from current and reliable sources. New Directions Aromatics Inc. provides the information contained herein, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties. As the ordinary or otherwise use(s) of this product is outside the control of New Directions Aromatics Inc., no representation or warranty, expressed or implied, is made as to the effect(s) of such use(s), (including damage or injury), or the results obtained. The liability of New Directions Aromatics Inc. is limited to the value of the goods and does not include any consequential loss. New Directions Aromatics Inc. shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon. New Directions Aromatics Inc. shall not be responsible for any damages resulting from use of or reliance upon this information. In the event of any dispute, the Customer hereby agree that Jurisdiction is limited to the province of Ontario, Canada.