

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Name:** Preservative, Germall Plus, Liquid
Product Code: 508-253X
- 1.2 Intended Use:** Compound used in customer substance/mixture/product.
- 1.3 Supplier:** Majestic Mountain Sage Inc
2490 S 1350 W
Nibley, Utah 84321 - United States of America
T 435.755.0863 - F 435.755.2108
www.TheSage.com
- 1.4 Emergency Telephone Number**
No additional information available.

SECTION 2: Hazards Identification

- 2.1 GHS Classification**
- | | |
|------------------------------------|--|
| Skin Sensitization, Category 1 | H317: May cause an allergic skin reaction. |
| Eye Irritation/Damage, Category 2A | H319: Causes serious eye irritation. |

2.2 Label Elements

Hazard Pictograms



Signal Word: Warning.

Hazard Statements

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Precautionary Statements

Prevention:

P261	Avoid breathing dust/fume/gas/mist/vapors/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.

Response:

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 rash occurs: Get medical advice/attention.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.

Disposal:

P501	Dispose of contents/container to an approved waste disposal plant.
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2.3 Hazards Not Otherwise Classified (HNOC)

Not applicable.

2.4 Other Information

Not applicable.

SECTION 3: Composition/Information on Ingredients

3.1 Substance/Mixture

Hazardous Components:

Chemical Name	CAS No.	Classification	Concentration (%)
Diazolidinyl urea	78491-02-8	Eye Irrit. 2A; H319	39.56
3-Iodo-2-propynyl Butyl Carbamate	55406-53-6	Acute Tox. 4; H302 Acute Tox, 2; H330 Eye Dam. 1; H318 Skin Sens, 1; H317 STOT SE 3; H335	0.50

SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

General Advice:	Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
Eye Contact:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. If irritation persists, get medical attention.
Skin Contact:	Remove contaminated clothing. If irritation develops, get medical attention. If on skin, rinse well with water. First aid is not normally required. However, it is recommended that exposed areas be cleaned by wash with soap and water.
Inhalation:	If breathed in, move person into fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
Ingestion:	Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

No symptoms known or expected. May cause an allergic skin reaction. Causes serious eye irritation.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to Physicians: No hazards which require special first aid measures.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

Suitable:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, foam, Carbon dioxide (CO ₂), or dry chemical.
Unsuitable:	High volume water jet.

5.2 Specific Hazards Arising From the Chemical

If product is heated above its flashpoint 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 Combustion Products:

Carbon dioxide, carbon monoxide and organic compounds.

5.3 Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

6.2 Environmental Precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and Material for Containment and Cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Comply with all applicable federal, state, and local regulations.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

Do not breathe vapors/dust. Do not smoke. Persons susceptible to skin sensitization 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 protect see Section 8. Dispose of rinse water in accordance with local and national regulations.

7.2 Conditions for Safe Storage

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. Electrical installations/working materials must comply with the technological standards.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure Guidelines: No information available.

8.2 Appropriate Engineering 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.

8.3 Individual Protection Measures, Such as Personal Protective Equipment

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

Skin/Body Protection: Wear as appropriate: impervious clothing, safety shoes, and resistant gloves.

Respiratory Protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General Hygiene Considerations: Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical State:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor Threshold:	No information available

<u>Property</u>	<u>Values</u>
pH:	No information available
Melting/Freezing Point:	-83.00°F / -63.89°C
Boiling Point/Range:	378.00°F / 192.22°C
Flash Point:	210.00°F / 98.89°C
Evaporation Rate:	No information available
Flammability (solid, gas):	No information available
Flammability Limit in Air	
Upper Flammability Limit:	No information available
Lower Flammability Limit:	No information available
Vapor Pressure:	0.09576 hPa (20°C)
Vapor Density:	No information available
Density:	1.15 - 1.25 g/cm ³ (20°C)
Water Solubility:	Soluble
Solubility in Other Solvents:	No information available
Partition Coefficient:	No information available
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Kinematic Viscosity:	No information available
Dynamic Viscosity:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available

SECTION 10: Stability and Reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions

Product will not undergo hazardous polymerization.

10.4 Conditions to Avoid

Excessive heat, exposure to sunlight and exposure to moisture.

10.5 Incompatible Materials

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

10.6 Hazardous Decomposition Products

No hazardous decomposition product are known.

SECTION 11: Toxicological Information
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11.1 Information on Toxicological Effects

Information on Likely Routes of Exposure:

Inhalation, skin contact, eye contact, and ingestion.

Acute Toxicity:

Not classified based on available information.

Components:

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

Exposure time: 4 h

Test atmosphere: dust/mist

Acute Dermal Toxicity: LD50 (Rat): > 5,000 mg/kg

Skin Corrosion/Irritation:

Not classified based on available information.

Product:

Remarks: May cause skin irritation in susceptible persons.

Components:

Diazolidinyl urea:

Result: Not irritating to skin.

3-Iodo-2-propynyl butyl carbamate:

Result: Mildly irritating to skin.

Serious Eye Damage/Eye Irritation:

Causes serious eye irritation.

Product:

Remarks: Vapors may cause irritation to the eyes, respiratory system and the skin. Causes serious eye irritation.

Components:

Diazolidinyl urea:

Result: Irritating to eyes.

3-Iodo-2-propynyl butyl carbamate:

Result: Corrosive to eyes.

Respiratory or Skin Sensitization:

Skin Sensitization: May cause an allergic skin reaction.

Respiratory Sensitization: Not classified based on available information.

Components:

Diazolidinyl urea:

Test Type: Maximization Test (GPMT)

Species: Guinea pig

Assessment: Did not cause sensitization on laboratory animals.

3-Iodo-2-propynyl butyl carbamate:

Assessment: May cause sensitization by skin contact.

Germ Cell Mutagenicity:

Not classified based on available information.

Components:

Diazolidinyl urea:

Genotoxicity in vitro:

Test Type: Ames test

Metabolic Activation: With and without metabolic activation.

Result: Negative

Test Type: Chromosome Aberration test in vitro

Metabolic Activation: With and without metabolic activation.

Result: Negative

Genotoxicity in vivo:

Test Type: In vivo micronucleus test

Test species: mouse (male and female)

Application Route: Oral

Method: Mutagenicity (micronucleus test)

Result: Negative

Application Route: Oral
Method: OECD Test Guideline 486
Result: Negative

Carcinogenicity:

Not classified based on available information.

Reproductive Toxicity:

Not classified based on available information.

Components:

Diazolidinyl urea:
Effects on foetal
development:

Test Type: Embryo-foetal development
Species: Rat
Application Route: Oral
Dose: 500 milligram per kilogram

STOT - Single Exposure:

Not classified based on available information.

Components:

3-Iodo-2-propynyl butyl carbamate:

Target Organs: Respiratory tract
Assessment: May cause respiratory irritation.

STOT - Repeated Exposure:

Not classified based on available information.

Repeated Dose Toxicity

Components:

Diazolidinyl urea:

Species: Rat, male and female
NOEL: 200 mg/kg
Application Route: Oral
Exposure Time: 90-day

Aspiration Toxicity:

Not classified based on available information.

Product:

No aspiration toxicity classification.

Further Information:

Product:

Remarks: No data available.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probably, possible or confirmed human carcinogen by IARC.

OSHA: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

Components:

Diazolidinyl urea:

Toxicity to Fish: LC50 (Fish): > 100 mg/l
Exposure Time: 96 h

Toxicity to Daphnia and Other Aquatic Invertebrates:

EC50 (Daphnia magna (Water flea)): 58 mg/l
Exposure Time: 48 h
Test Type: Flow-through test

Toxicity to Algae: ErC50 (Green algae (Selenastrum capricomutum)): 5.78 mg/l
End Point: EC 50
Exposure Time: 72 h
Test Type: Growth inhibition
Analytical Monitoring: Yes

3-Iodo-2-propynyl butyl carbamate:

Toxicity to Fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.067 mg/l
Exposure Time: 96 h

Toxicity To Daphnia and Other Aquatic Invertebrates:

EC50 (Daphnia magna (Water flea)): 0.16 mg/l
Exposure time: 72 h

Toxicity to Algae: EC50 (Desmodesmus subspicatus (green algae)): 0.022 mg/l
Exposure Time: 72 h

M-Factor (Acute Aquatic Toxicity): 10

12.2 Persistence and Degradability

Components:

Diazolidinyl urea:

Biodegradability:

Biodegradation: 24%

Exposure Time: 28 d

Remarks: Not really biodegradable

Stability in Water:

Degradation half life)DT50): 12 h (20.40 °C) pH: 7

12.3 Bioaccumulation

Components:

Diazolidinyl urea:

Bioaccumulation:

Remarks: The substances has low potential for bioaccumulation.

Partition Coefficient: n-octanol/water:

log Pow: 0.9 (20 °C)

3-Iodo-2-propynyl butyl carbamate:

Bioaccumulation:

Species: Cyprinus carpio (Carp)

Bioconcentration factor (BCF): 4.5

Remarks: Bioaccumulation is unlikely.

Partition Coefficient: n-octanol/water:

log Pow: 2.81

12.4 Mobility in Soil

Components:

Diazolidinyl urea:

Distribution Among Environmental Compartments:

Absorption/Soil

Medium: Soil

Koc: <2

12.5 Other Adverse Effects

Product:

Additional Ecological Information:

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

Components:

Diazolidinyl urea:

Results of PBT and vPvB Assessment:

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

Disposal of Wastes:

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 containers.

SECTION 14: Transport Information

14.1 Transport Regulations

Name	Classification	Marine Pollutant/ Ltd. Qty.
MX_DG	Not dangerous goods.	-
International Air Transport Association - Passenger	Not dangerous goods.	-
International Air Transport Association - Cargo	Not dangerous goods.	-
International Maritime Dangerous Goods	Not dangerous goods.	-
TDG_INWT_C	Not dangerous goods.	-
TDG_RAIL_C	Not dangerous goods.	-
TDG_ROAD_C	Not dangerous goods.	Marine Pollutant: (3-Iodo-2-propynyl butyl carbamate)
U.S. DOT - Inland Waterways	Not dangerous goods.	-
CFR_RAIL_C	Not dangerous goods.	-
U.S. DOT - Road	Not dangerous goods.	-

SECTION 15: Regulatory Information

15.1 U.S. Federal Regulations

SARA 311/312

Acute Health Hazard.

15.2 U.S. State Regulations

Pennsylvania Right To Know

Propylene glycol	57-55-6	50.00-70.00%
Diazolidinyl Urea	78491-02-8	30.00-50.00%

New Jersey Right To Know

Propylene glycol	57-55-6	50.00-70.00%
Diazolidinyl Urea	78491-02-8	30.00-50.00%

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

15.3 International Inventories

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	All components of this product are on the Canadian DSL
AICS	On the inventory, or in compliance with the inventory
ENCS	Not in compliance with the inventory
KECL	On the inventory, or in compliance with the inventory
PICCS	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory

Inventories: AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA).

SECTION 16: Other Information

16.1 NFPA Rating

Health Hazards:	2
Flammability:	1
Instability:	0
Physical and Chemical Properties:	-

16.2 HMIS Rating

Health Hazards:	2
Flammability:	1
Physical Hazards:	0
Personal Protection:	-

16.3 NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB.

16.4 Full Text of H-Statements Referred to Under Sections 2 and 3

H302: Harmful if swallowed.	H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.	H319: Causes serious eye irritation.
H330: Fatal if inhaled.	H335: May cause respiratory irritation.

Notes:

This safety data sheet is based on the properties of the material known at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment holds no responsibility. This document is not intended for quality assurance purposes.