Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Germall ® Plus, Liquid
Commercial Name Liquid Germall ® Plus
Product Use Preservative.
Restrictions On Use Not available.

Product Code 30-3833

Company
PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: CFR 1910.1200 Eye irritation: Category 2A Skin Sensitization: Category 1

Signal Word WARNING

Hazard Statement(s) May cause an allergic skin reaction. Causes serious eye irritation.

Pictogram(s) or Symbol(s)

Precautionary Statement(s):

Prevention Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/ eye protection/ face protection.

Response IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Wash contaminated clothing before reuse.

Storage Not available.

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

Section 3: Composition/Information on Ingredients

Substance/Mixture Mixture
Components Carbamic acid, Propanediol and Urea
% By Weight 0.4%, 60% and 40%
CAS# Not available.
Molecular Weight Not available.
Chemical Formula Not available.
Synonym(s) Not available.

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Carbamic acid	55406-53-6	0.4		
Propanediol	57-55-6	60		
Urea	78491-02-8	40		

Section 4: First-Aid Measures

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.

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 washing with soap and water. Wash contaminated clothing before re-use.

Eye Contact Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye.

Ingestion Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Symptoms/Effects

Acute Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways) May cause an allergic skin reaction. Causes serious eye irritation.

Delayed Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways) May cause an allergic skin reaction. Causes serious eye irritation.

Immediate Medical Attention

No hazards which require special first aid measures.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Water spray, Foam, Carbon dioxide (CO2), Dry chemical

Unsuitable Extinguishing Media

High volume water jet

Products of Combustion

Carbon dioxide (CO2), Carbon monoxide, Aldehydes, Hydrocarbons, Ketones

Firefighters Special Equipment and Precautions

In the event of fire, wear self-contained breathing apparatus

Section 6: Accidental Release Measures

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. 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. Methods and materials 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. Other information: Comply with all applicable federal, state, and local regulations.

Section 7: Handling and Storage

Advice on protection against fire and explosion: Normal measures for preventive fire protection. Advice on safe handling: Do not breathe vapours/dust. Do not smoke. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or ecurrent 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. Conditions for safe storage: 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. Further information on storage conditions: Do not store above 30° C / 86° F. Further information on storage stability: No decomposition if stored and applied as directed.

Section 8: Exposure Controls/Personal Protection

Exposure Limits Not available.

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.
Personal Protection	Respiratory protection: In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter combination. Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator. Hand protection Material: butyl-rubber Break through time: 480 min Glove thickness: > 0.5 mm Remarks : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Eye protection: Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. Skin and body protection: 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). Hygiene measures: Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

Section 9: Physical and Chemical Properties

Appearance	Liquid. Colorless
Odor	Characteristic
Odor Threshold	Not available.

Melting Point	-83.00 °F / -63.89 °C	**pH**	Not available.
Freezing Point	Not available.	**Vapor Pressure**	0.09576 hPa (20 °C)
Boiling Point/Range	378.00 °F / 192.22 °C	**Vapor Density**	Not available.
Decomposition temperature	Not available.	**Viscosity**	Not available.
Partition Coefficient: n-octanol/water	Not available.	**Evaporation Rate**	Not available.
Flash Point	98.89 °C	**Autoignition temperature**	Not available.
Flammability	Not available.	**Flammability or Explosive Limits:**	
		Lower	Not available.
		Upper	Not available.

Solubility(ies)	Soluble in water.
Other	Not available.

Section 10: Stability and Reactivity

Reactivity	No decomposition if stored and applied as directed.
Chemical Stability	Stable under recommended storage conditions.
Hazardous Polymerization	Product will not undergo hazardous polymerization.
Conditions to Avoid	excessive heat. Exposure to sunlight. Exposure to moisture.
Incompatible Materials	isocyanates, Strong acids, strong bases, strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (Co2)

Section 11: Toxicological Information

RTECS Not available.

Acute Toxicity
Not available.

Skin Corrosion/Irritation
May cause skin irritation in susceptible persons.

Serious Eye Damage/Irritation
Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Respiratory or Skin Sensitization
Not classified based on available information.

Germ Cell Mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive Toxicity
Not classified based on available information.

Routes of Entry
Inhalation. Skin contact. Eye contact. Ingestion

Symptoms Related to Exposure
Not available

Potential Health Effects
Not available

Target Organ(s) Not available

Section 12: Ecological Information

Ecotoxicity
Acute aquatic toxicity Category 2; Toxic to aquatic life. Chronic aquatic toxicity Category 3; Harmful to aquatic life with long lasting effects. Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 29,485 - 39,339 mg/l Exposure time: 96 h Test Type: semi-static test Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Test Type: static test Toxicity to algae: EC50 (Pseudokirchneriella subcapitata (green algae)): 24,200 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test 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 (Selenastrum capricornutum (green algae)): 5.78 mg/l End point: EC50 Exposure time: 72 h Test Type: Growth inhibition Analytical monitoring: yes Ecotoxicology Assessment Long-term (chronic) aquatic hazard: This product has no known ecotoxicological effects. 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: 48 h Toxicity to algae: EC50 (Desmodesmus subspicatus (green algae)): 0.022 mg/l Exposure time: 72 h M-Factor (Short-term (acute) aquatic hazard): 10 Toxicity to fish (Chronic toxicity): NOEC (Pimephales promelas (fathead minnow)): 0.0084 mg/l Exposure time: 35 d Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia (water flea)): 0.05 mg/l Exposure time: 21 d M-Factor (Long-term (chronic) aquatic hazard): 1

Persistance and Degradability
ALKYL GLYCOL: Biodegradability: Result: Readily biodegradable. Biodegradation: 81 % Exposure time: 28 d Method: OECD Test Guideline 01F DIAZOLIDINYL UREA: Biodegradability: Result: Not readily biodegradable. Biodegradation: 24 % Exposure time: 28 d Method: Directive 67/548/EEC Annex V, C.4.C. Stability in water: Degradation half life(DT50): 12 h (20.4 °C) pH: 7 3-IODO-2-PROPYNYL BUTYL CARBAMATE: Biodegradability: Result: rapidly biodegradable No data available

Bioaccumulative Potential
ALKYL GLYCOL: Partition coefficient: n-octanol/water: log Pow: -0.92 DIAZOLIDINYL UREA: Bioaccumulation: Remarks: The substance 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 No data available

Mobility in Soil
DIAZOLIDINYL UREA: Distribution among environmental compartments: Adsorption/Soil Medium: Soil Koc: < 2 No data available

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., Harmful to aquatic life with longlasting effects. 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

Waste Disposal
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.

Disposal of Container
Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recyling or disposal. Do not re-use empty containers.

Other Considerations
Not available

Section 14: Transport Information

DOT Classification

Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information

Regulations

EPCRA - Emergency Planning and Community Right-to-Know Act CERCLA Reportable Quantity This material does not contain any components with a CERCLA RQ. SARA 304 Extremely Hazardous Substances Reportable Quantity This material does not contain any components with a section 304 EHS RQ. SARA 311/312 Hazards : Serious eye damage or eye irritation Respiratory or skin sensitisation SARA 302: This material does not contain any components with a section 302 EHS TPQ. SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. US State Regulations Pennsylvania Right To Know ALKYL GLYCOL 254504001-5231 The identity and concentration of one or more component(s) is being withheld under business confidentiality. DIAZOLIDINYL UREA 78491-02-8 New Jersey Right To Know ALKYL GLYCOL 254504001-5231 The identity and concentration of one or more component(s) is being withheld under business confidentiality. DIAZOLIDINYL UREA 78491-02-8 California Prop. 65 This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label. The components of this product are reported in the following inventories: 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 KECI: 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 TCSI: On the inventory, or in compliance with the inventory TSCA: On TSCA Inventory Inventories AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA) - On or in compliance with the active portion of the TSCA inventory

Other

Not available

Section 16: Other Information

Not available