



Safety Data Sheet (91/155/EEC): 20019I

Revision Date: 04/01/2003
Issued: 12/22/2003

LIQUID GERMALL® PLUS

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of Substances of Preparation:

Product Id: 20019I

Product Name: LIQUID GERMALL® PLUS

CAS Registry Number: 57-55-6; 78491-02-8; 55406-53-6

CAS Name: 1,2-Propanediol; Urea, N-(1,3-bis(hydroxymethyl)-2,5-dioxo-4-imidazolidinyl)-N,N'-bis(hydroxymethyl)-; Carbamic acid, butyl-, 3-iodo-2-propynyl ester

Responsible Party: International Specialty Products
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ISP (Great Britain) Co. Ltd.
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Synonyms: Propylene Glycol; Diazolidinyl Urea; Iodopropynyl Butylcarbamate (INCI NAMES)

Emergency Telephone: +32.3.575.55.55 (SGS)

Prepared By: Product Stewardship

Product Use: Preservative

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components:	Weight %	EU Classification:	German MAK:	UK OES/MEL:
Urea, N-(1,3-bis(hydroxymethyl)-2,5-dioxo-4-imidazolidinyl)-N,N'-bis(hydroxymethyl) 78491-02-8	40	NA	Not determined	Not determined

3. HAZARDS IDENTIFICATION

Risk Phrases: R52 - Harmful to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.

Hazard Overview

Target Organs: Eyes / Skin

Primary Entry Routes: Eyes. Ingestion. Dermal - skin.

Acute Health Hazards: Causes mild eye irritation. Causes mild skin irritation.

Chronic Health Hazards: None known

Signs and Symptoms of Overexposure

Eye Contact: Causes mild eye irritation .

Skin Contact: Causes mild skin irritation.

Ingestion: Not a hazard under normal use conditions.

Inhalation: Not a hazard under normal use conditions.

4. FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Skin Contact: Immediately wash with soap and plenty of water. Remove contaminated clothing and launder before reuse. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: No specific treatment is necessary since material is not likely to be hazardous by inhalation. If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

5. FIRE FIGHTING MEASURES

Flash Point (°F): 210

Extinguishing Media: All standard firefighting media

Unusual Fire/Explosion Hazards: Unknown

Special Protective Equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Use appropriate protective equipment.

Procedure for Cleaning/Absorption: Contain spill with sand or other inert materials.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. May produce sensitization to damaged exposed skin (as sold) (See Toxicological Section 11). Wear appropriate PPE. Wash thoroughly with soap and water after handling.

Storage: Keep containers tightly closed when not in use. Store in a cool, dry place, out of direct sunlight. Hygroscopic Material. Keep containers closed tightly when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in a well ventilated area.

Respiratory Protection: Use in a well ventilated area.

Hand Protection: Use gloves as a standard industrial handling procedure.

Eye Protection: Chemical goggles; also wear a face shield if splashing hazard exists.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
pH:	Unknown
Boiling Point (°F):	378
Melting Point/Freezing Point(°F):	-83
Vapor Pressure:	0.072 mmHg @20°C
Solubility:	Soluble in water

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions of handling, use and transportation.
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Not determined.
Hazardous Decomposition Products:	None known

11. TOXICOLOGICAL INFORMATION

Toxicity Test:

Acute Oral LD50 (mg/kg):	2,570 (Diazolidinyl urea) 1,470 (IPBC) 20,000 (Propylene Glycol)
Acute Dermal LD50 (mg/kg):	>2,000 (Diazolidinyl urea) >2,000 (IPBC) 31,000 (Propylene Glycol)
Acute Inhalation LC50 (mg/l):	1.3 mg/kg (rat, 50% aqueous solution) 670 (IPBC dust) 630 (IPBC as liquid aerosol)
Sensitization:	Non-sensitizing (0.5% aqueous solution) (Human RIPT) (Diazolidinyl urea) Non-sensitizing to guinea pigs (0.1% aqueous solution) (Diazolidinyl urea) Slight sensitizer to guinea skin in Guinea Pig Maximization Test (5% aqueous solution injection) (Diazolidinyl urea) Non-sensitizing (0.1% aqueous solution) (Germall Plus)
Mutagenicity:	Non-mutagenic (Ames assay, Mouse micronucleus test, Rat hepatocyte DNA repair assay) (IPBC) Non-mutagenic (Ames assay). (Diazolidinyl urea) Non-mutagenic (In-Vitro Chromosomal Aberration- Chinese hamster ovary cells). (Diazolidinyl urea) Non-mutagenic (In-Vitro rat hepatocytes/DNA Repair Assay) (Diazolidinyl urea). Non-mutagenic (Propylene Glycol)

Reproductive/Developmental Toxicity:	<p>Rat 42 weeks; 120, 300, 750 mg/kg/day NOAEL= 120 mg/kg/day (IPBC)</p> <p>Rat 9 days; 20, 50, 125 mg/kg/day NOAEL= 50 mg/kg/day (IPBC)</p> <p>Rat 14 weeks; 120, 300, 750 mg/kg/day NOAEL= 120 mg/kg/day (P & F1 generations) (IPBC)</p> <p>Mouse 9 days; 20, 50, 125 mg/kg/day NOAEL= 50 mg/kg/day (IPBC)</p> <p>Mouse 9 days; 20, 50, 125 mg/kg/day NOAEL 125 mg/kg/day (Maternal and Reproductive toxicity) (IPBC)</p> <p>Mouse 9 days; 20, 50, 125 mg/kg/day NOAEL for Maternal= 50 mg/kg/day & 125 mg/kg/day for Repro (IPBC)</p> <p>Rat 9 days; 20, 50 125 mg/kg/day NOAEL= 50 mg/kg/day for Maternal & Repro (IPBC).</p>
Teratogenicity:	<p>Non-teratogenic in rats dosed orally with 125, 250 or 500 mg/kg day.</p> <p>Nonteratogenic in rats receiving dermally 30-300 mg/kg/day from days 6-15 of gestation. (Diazolidinyl urea)</p> <p>Non-teratogenic (Propylene Glycol)</p>
Carcinogenicity:	<p>No evidence of carcinogenic potential. Rat 100 weeks; 20, 40,80 mg/kg/day NOAEL=20 mg/kg/day (IPBC)</p>
Skin Irritation:	<p>Mildly irritating to human skin (Propylene glycol).</p> <p>Slightly irritating to rabbit skin (0.0125% IPBC in sunscreen formulation)</p> <p>Practically non-irritating to rabbit skin (IPBC)</p> <p>Non-irritating to human skin (0.5% aqueous solution, Diazolidinyl urea)</p> <p>Non-irritating to rabbit (5% aqueous solution) and guinea pig skin (100% wettable powder) (Diazolidinyl urea)</p> <p>Non irritating (Human RIPT). (1.0% aqueous solution, Diazolidinyl urea & IPBC)</p>
Eye Irritation:	<p>Mildly irritating to rabbit eye (Propylene glycol)</p> <p>Mildly irritating to rabbit eye (50% aqueous solution) (Diazolidinyl urea)</p> <p>Non-irritating to rabbit eye (1 & 5 % aqueous solutions) (Diazolidinyl urea)</p> <p>Moderately irritating to rabbit eye with washout</p> <p>Severely irritating to rabbit eye without washout (IPBC)</p>
Other Information:	<p>Phototoxicity: Non-phototoxic (0.015% IPBC)</p> <p>Non-photoallergic (0.2ml, 100% IPBC)</p> <p>Phototoxicity: Non-phototoxic (0.5% Diazolidinyl urea)</p> <p>Comedogenicity; Non-Comedogenic (0.1% IPBC in white cream, 0.01% moisturizing gel).</p> <p>Subchronic Oral Toxicity: Rats fed diets containing 0-50,000 ppm of Propylene Glycol for 15 weeks. The Propylene Glycol in the feed corresponded to a dose of 2.5g/kg/day. No significant differences were found between the control & Propylene Glycol dosed animals.</p> <p>Rat 28 day: 60, 125, 250 mg/kg/day; NOAEL= 60 mg/kg/day (IPBC)</p> <p>Rat 90 day: 20, 50, 125 mg/kg/day; NOAEL= 20 mg/kg/day (IPBC)</p> <p>Rat 90 day: 20, 50, 125 mg/kg/day; NOAEL (Females)= 125 mg/kg/day; NOAEL (Males)= 50 mg/kg/day (IPBC)</p> <p>Subchronic Oral Toxicity: Rat 90; 10, 25, 100 mg/kg/day - no observed adverse effect level (NOAEL) 100 mg/kg/day (Diazolidinyl urea)</p> <p>28day; 100, 300, 900 mg/kg. no observed adverse effect level (NOAEL) 100 mg/kg/day (Diazolidinyl urea)</p>

12. ECOLOGICAL INFORMATION

Biodegradability:	Not determined.
Aquatic Toxicity:	Daphnia Magna, 48 hr. EC50: 34.9 mg/L; NOEL 21.6 mg/L Bluegills, 96 hr. LC50: >100 mg/L; NOEL 60mg/L Rainbow trout, 96 hr. LC50: >100 mg/L; NOEL 100 mg/L Acute Oral LD50: >2,250 mg/kg (Northern bobwhite). 5-Day subacute dietary studies produced no evidence of toxicity at concentrations up to 5,620 ppm. (Diazolidinyl urea)

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method:	Follow all applicable community, national or regional regulations regarding waste management methods.
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14. TRANSPORT INFORMATION

Land Transportation:

DOT (Non-Bulk):

DOT Shipping Name: NOT REGULATED

UN/NA Number: NONE

Hazard Class: NONE

DOT (Bulk):

DOT Shipping Name: NOT REGULATED

UN/NA Number: NONE

Hazard Class: NONE

Air Transportation (IATA):

Proper Shipping Name: NOT REGULATED

UN Number: NONE

Hazard Classification: NONE

Sea Transportation (IMO):

Proper Shipping Name: NOT REGULATED

UN/ID Number: NONE

Hazard Classification: NONE

ADR:

Proper Shipping Name: NOT REGULATED

15. REGULATORY INFORMATION

Classification:

Risk Phrases: R52 - Harmful to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.

Safety Phrases:	S57 - Use appropriate containment to avoid environmental contamination. S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.
TSCA Inventory List:	This product and/or its components is listed on TSCA.
California Proposition 65 Carcinogens & Reproductive Toxicity (CRT) List:	None of the components of this product is listed on CALPROP.
Canada DSL Inventory List:	This product and/or its components is listed on DSL.
Canada NDSL Inventory List:	This product and/or its components is not listed on NDSL.
EU EINECS List:	This product and/or its components is listed on EINECS.
EU ELINCS List:	This product and/or its components is not listed on ELINCS.
Germany VCI Assigned Classification into Water Endangering Classes (WGK) List:	This product and/or its components is not listed on WGK.
Japan Inventory of Existing & New Chemical Substances (ENCS):	This product and/or its components is not listed on ENCS.
Australia Inventory of Chemical Substances (AICS) List:	This product and/or its components is listed on AICS.

16. OTHER INFORMATION

Prepared By:	Product Stewardship
Legend:	N.Av.= Not Available; N.Ap.= Not Applicable
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