

BIO

— CORPORATION —

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MATERIAL SAFETY DATA SHEET

Last Revision: December 2005

3911 Nevada Street
Alexandria MN 56308320-763-9094
800-222-9094**SECTION 1: MATERIAL IDENTIFICATION**

PRODUCT NAME: **BIO SHIELD HUMECTANT SPRAY**
CHEMICAL NAME: PROPYLENE GLYCOL MIX
MANUFACTURER: BIO COMPANY INC.
EMERGENCY: CHEMTREC 1-800-424-9300
BIO COMPANY INC. 1-320-763-9094

HMIS HAZARD

4 - Extreme	HEALTH.....0
3 - High	FIRE1
2 - Moderate	REACTIVITY ...1
1 - Slight	OTHER
0 - Least	

SIGNATURE / DATE *Bill Waddel* 12-30-05**SECTION 2: HAZARDOUS INGREDIENTS**

<u>HAZARDOUS CHEMICAL</u>	<u>CAS #</u>	<u>PERCENT</u>	<u>PEL/TWA</u>	<u>SARA III, SEC 313</u>
PROPYLENE GLYCOL	57-55-6	25%	50ppm	YES
WATER	7732-185	75%	NA	

SECTION 3: CHEMICAL & PHYSICAL PROPERTIES

Appearance:	Pink liquid
Odor:	Alcohol odor
Boiling Point (°F):	370
Freezing Point (°F):	
Chemical composition:	ch3chohch2oh
Specific Gravity (H ₂ O=1 @ 70°F):	1.0361 @ 20C
Water solubility:	Miscible in water
Vapor Pressure (mm Hg):	0.129 @ 25C
Percent Volatile By Volume:	N/A
Evaporation Rate (Butyl Acetate = 1):	0.01
Vapor Density (Air = 1):	2.6

SECTION 4: FIRE & EXPLOSION HAZARDS

FLAMMABLE MATERIAL:	Yes
FIRE / EXPLOSION HAZARD SUMMARY:	Material can support combustion.
FLASHPOINT:	210°F/99°C
AUTO IGNITION TEMPERATURE:	700°F/371°C
LOWER EXPLOSION LIMIT:	NA
UPPER EXPLOSION LIMIT:	NA
EXTINGUISHING:	Water pray, dry chemical, alcohol, foam or CO2
FIREFIGHTING:	Use best for surrounding fire-fighting conditions.

— SECTION 5: REACTIVITY INFORMATION —

STABILITY: Stable under ordinary conditions of use and storage

INCOMPATIBILITY: Avoid strong oxidizing agents such as : nitrates, perchlorates or concentrated sulfuric, nitric, or acetic acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide and Carbon Monoxide may form when heated to decomposition. Aldehydes or lactic, pyruvic or acetic acids may also be formed.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Heat, flames, ignition sources and incompatibles.

— SECTION 6: HEALTH HAZARDS - PROTECTIVE MEASURES - FIRST AID —

EXPOSURE LIMITS: Oral rat LD50:20g/Kg Skin rabbit LD50: 20.8g/Kg.

Irritation: Eye rabbit/Draize, 500mg/24H mild.

Trace Ingredients Not listed.

EYES: Contact may cause irritation. Rinse both upper and lower eyelids for 15 minutes.

SKIN: Mild irritant and defatting agent, especially on prolonged contact.

INHALATION: No adverse health effects via inhalation.

INGESTION: Relatively non-toxic. Ingestion of sizable amount (over 100ml) may cause some gastrointestinal upset and temporary central nervous system depression. Effects appear more severe in individuals with kidney problems.

IN ALL CASES: GET PROMPT MEDICAL ATTENTION IF ADVERSE EFFECTS DEVELOP

PRIMARY ROUTES OF ENTRY: Skin, eyes, inhalation, ingestion.

HYGIENE: Wash hands and face before eating or drinking. Wash soiled clothing before wearing again.

— SECTION 7: PRECAUTIONS FOR SAFE HANDLING, STORAGE & USE —

PERSONAL PROTECTION EQUIPMENT: Splash-proof eye goggles, nitrile gloves, apron, sleeve protector.

OTHER PROTECTIVE EQUIPMENT: Eyewash station within 15-second walk from production activities.

SMALL SPILLS: Cover spill area with sorbent material. Wipe up. Evaporate saturated sorbent material to dryness in chemical fume hood or outdoors: discard dry, material as solid waste.

DISPOSAL: This mixture is considered non-toxic and can be disposed of in the garbage or poured down a drain in most circumstances. Check with your local waste disposal agency. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

STORAGE AND HANDLING: Keep containers closed. Store away from heat or ignition sources. Do not eat or smoke where humectant fluid is being used or handled. Wear impervious clothing as needed to prevent exposure while handling.

— SECTION 8: SPECIAL PROTECTION INFORMATION —

VENTILATION: A system of local and or general exhaust is recommended to keep exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

RESPIRATORY PROTECTION: If the exposure limit is exceeded, a half-face respirator with an organic vapor cartridge and particulate filter (NIOSH type P95 or R95 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.

SKIN PROTECTION: Wear protective gloves and clean body-covering clothing.

EYE PROTECTION: Splash-proof chemical safety goggles. Wear NO CONTACT LENSES during use of this material, or during dissection activities.

OTHER PROTECTIVE EQUIPMENT: Eyewash station in close proximity. Sleeve protectors recommended.

— SECTION 9: REGULATORY INFORMATION —

DOT CLASSIFICATION: Not regulated

HAZARD CLASSIFICATION: IRRITANT

RIGHT-TO-KNOW LABELING: Humectant fluid

SAFETY EQUIPMENT: Nitrile/butyl rubber gloves, splash-proof chemical goggles, apron, sleeve protectors. Eyewash station in close proximity.

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ND – Not Determined NA – Not Applicable NE – Not Established