

## MATERIAL SAFETY DATA SHEET

**PenaShield™**

Health Emergencies: CALL (800) 424-9300 OR YOUR LOCAL POISON CONTROL CENTER

**SECTION 1 - PRODUCT IDENTIFICATION**

Manufacturer: Nisus Corporation  
 100 Nisus Drive  
 Rockford, TN 37853  
 Emergency Telephone No.: (877) 230-8543

Product Trade Name: **PenaShield**  
 EPA Registration No. 64405-5  
 Chemical Family: Glycol borate solution  
 Formula: Proprietary Mixture  
 CAS No.: N/A  
 DOT Hazard Classification: Not Regulated  
 Hazard Rating: NFPA  
 Health 1 Slight hazard  
 Flammability 0  
 Reactivity 0

**SECTION II - HAZARDOUS INGREDIENTS**

Material or Component: Ethylene Glycol  
 CAS No.1 07-21-1 TLV  
 50.00 ppm ACGIH Type CEIL

**SECTION III- PHYSICAL DATA**

Appearance: Clear liquid Specific  
 Gravity: 1.1 g/ml  
 Vapor Pressure: Less than water %  
 Solubility in Water: 100%  
 % Volatile: 89% by weight Boiling  
 Point: Above 2120 F  
 pH of aqueous solution: 6.8 -7.  
 Odor: Clean/Detergent

**SECTION IV - HEALTH HAZARD INFORMATION**

**EYE CONTACT:** This material may cause eye irritation. Direct contact with the liquid or exposure to its vapors or mists may cause burning, tearing and redness in sensitive individuals.

**SKIN CONTACT:** This material is essentially non-irritating. Prolonged or repeated exposure to this material may cause softening of the skin. Persons with pre-existing skin disorders may be more susceptible to the effects of this material.

**INGESTION:** This material may be harmful if swallowed. It is of low toxicity to humans (oral/lethal dose: greater than 5.0 g/kg). Ingestion of large amounts may cause nausea, mental sluggishness followed by difficulty in breathing and heart failure, kidney and brain damage, possibly death.

**INHALATION:** Avoid breathing high concentrations of vapors or mist.

**COMMENTS:** None of the major constituents of this material have been identified as carcinogens or probable carcinogens by IARC or OSHA.

Acute oral LD<sub>50</sub> -greater than 5 gm/kg body weight (Sprague-Dawley male and female rats).

Acute dermal LD<sub>50</sub> -greater than 2 gm/kg body weight (New Zealand Albino male and female rabbits) Acute inhalation

LD<sub>50</sub> -greater than 5.06 mg/L for 4 hours (Sprague-Dawley male and female rats). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal.

**SECTION V - EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT:** Flush eyes with clean water for 15 minutes. If irritation persists, seek medical attention.

**SKIN CONTACT:** Remove contaminated clothing. Cleanse affected area thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention.

**INHALATION:** If irritation of the nose or throat develops, move away from the source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing, artificial respiration should be administered. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**SECTION V - EMERGENCY AND FIRST AID PROCEDURES** (Cont)

**INGESTION: \*\*\*SEEK EMERGENCY MEDICAL ATTENTION\*\*\*** If the victim is drowsy or unconscious, place on the left side with the head down. Do not give anything by mouth. If victim is conscious and alert, vomiting should be induced for ingestion of more than 1 -2 tablespoons for an adult, preferably with syrup of ipecac under direction from a physician or poison center. If syrup of ipecac is not available, vomiting can be induced by gently placing two fingers in back of throat. If large amounts are ingested, treat for borate toxicity. If possible, do not leave victim unattended.

**NOTE TO PHYSICIAN:** Treat for exposure to glycols. Contains borates. Monitor electrolytes.

**SECTION VI - REACTIVITY DATA**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** None

**INCOMPATIBILITY (MATERIALS TO AVOID):** None

**HAZARDOUS POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None

**SECTION VII - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** N/A

**FLAMMABLE LIMITS:** N/A

**EXTINGUISHING MEDIA:** N/A

**FIRE AND EXPLOSION HAZARDS:** This material will not ignite.

**FIRE FIGHTING PROCEDURES:** N/A

**SECTION VIII- SPILL OR LEAK PROCEDURES**

**PRECAUTIONS IN CASE OF RELEASE OR SPILL:** Absorb with organic liquid absorbent. Do not let material or washwaters enter sewers or waterways.

**WASTE DISPOSAL METHOD:** Contact your State Pesticide, Environmental Control Agency or local authorities for proper disposal guidelines.

**SECTION IX -SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION:** The use of respiratory protection is advised when concentrations exceed the established exposure limits (see Section II). Use a respirator with disposable cartridges designed for protection from organic vapors (NIOSH Approved).

**VENTILATION:** If existing ventilation is not adequate to maintain airborne concentrations below the established exposure limits (see Section II) additional ventilation or exhaust systems may be required.

**PROTECTIVE GLOVES:** The use of solvent resistant gloves is advised.

**EYE PROTECTION:** Use chemical splash goggles or face shield.

**OTHER PROTECTIVE EQUIPMENT:** It is recommended that a source of clean water be available in the work area for flushing eyes and washing skin.

**SECTION X - SPECIAL PRECAUTIONS**

**HANDLING AND STORAGE PRECAUTIONS:** Store between 40° F and 90° F. Do not store in direct sunlight. Keep containers tightly closed.

**OTHER PRECAUTIONS:** Keep away from children and pets. Toxic to plants and shrubbery. Cover plants, root systems and surrounding soil with plastic to avoid contamination.

*The Information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This information and product are furnished on the condition that the persons receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.*



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