

MATERIAL SAFETY DATA SHEET

BORA-CARE®

Health Emergencies: CHEMTREC® (800) 424-9300

SECTION I - PRODUCT IDENTIFICATION

Manufacturer: Nisus Corporation
100 Nisus Drive
Rockford, TN 37853
(800) 264-0870 Fax: (865) 577-5825

Product Trade Name: BORA-CARE®
EPA Registration No. 64405-1
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 10

SECTION II - HAZARDOUS INGREDIENTS

Material or Component: Ethylene Glycol CAS No. 107-21-1
TLV 50.00 ppm ACGIH Type CEIL
(Note this is a raw material and there is no free ethylene glycol present)

SECTION III - PHYSICAL DATA

Appearance: Clear viscous liquid Specific Gravity: 1.38 g/ml
% Volatile: 38% by weight by TGA (as water)
Vapor Pressure: Negligible (<0.1) Boiling Point: Above 212° F
Odor: None
% Solubility in Water: 100%
pH: 50% aqueous solution 6.9 - 7.1

SECTION IV - HEALTH HAZARD INFORMATION

EYE CONTACT: This material may cause eye irritation. Direct contact 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 preexisting skin disorders may be more susceptible to the effects of this material.

INGESTION: This material can be harmful if swallowed. It is slightly toxic 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: Breathing high concentrations of vapors may cause nausea, dizziness or drowsiness, and irritation of the nose and throat. Pre-existing lung disorders may be aggravated by exposure to this material.

COMMENTS: None of the major constituents of this material have been identified as carcinogens or probable carcinogens by IARC or OSHA. Ethylene glycol may cause congenital malformations (teratogenic) in mice and rats when administered by gavage or in the drinking water during organogenesis; not teratogenic when fed in the diet. Preexisting kidney disorders may be aggravated by exposure to this material.

Acute oral LD₅₀ - greater than 5 gm/kg body weight (Sprague-Dawley male and female rats).

Acute dermal LD₅₀ - greater than 2 gm/kg body weight (New Zealand Albino male and female rabbits).

Acute inhalation LC₅₀ - greater than 5 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: Exposure to strong oxidizing agents.
INCOMPATIBILITY (MATERIALS TO AVOID): This material is incompatible with strong oxidizing agents. This product may corrode aluminum.

HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Ethylene oxide, carbon monoxide, carbon dioxide.

SECTION VII - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Above 220°F (Tag Closed Cup)

FLAMMABLE LIMITS: Not known.

EXTINGUISHING MEDIA: CO₂, dry powder or universal type foam.

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

FIRE FIGHTING PROCEDURES: Avoid inhaling smoke. The use of a SCBA is recommended for fire fighters. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame.

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: Good ventilation.

VENTILATION: Exhaust to ventilate.

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

EYE PROTECTION: Use safety glasses, 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.

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