

CYMEX[®]

Bed bug contact kill.

GREEN SOLUTION TO BED BUGS.



Cymex is a ready-to-use specifically formulated liquid borate product that kills bed bugs, fleas, dust mites and carpet beetles on contact. The product also provides long-term residual protection to kill and prevent infestations of fleas, dust mites and carpet beetles. Cymex is a green pest management product that provides highly effective control for insects while giving a low toxicity exposure to people and pets.



Cymex is a “green” borate-based liquid that kills bed bugs, fleas and other pests on contact. It can be used on mattresses as well as many other surfaces where pests hide.

- Kills bed bugs, fleas and dust mites on contact.
- Provides residual protection against fleas, dust mites, carpet beetles and household fungus.
- No known resistance.
- Non-foaming, no odor.
- “Green” product—low toxicity & highly effective.
- Clean up tools with soap and water.
- Can be applied to floors, pet bedding, carpeting, furniture and mattresses.
- For residential and commercial use, including:
 - apartments, boats, factories, food processing plants, garages, homes, hospitals, hotels, kennels, motels, offices, restaurants, schools, supermarkets, trains, trucks, veterinary areas, warehouses and zoos.

Visit www.nisuscop.com for the complete line of green products.

100 Nisus Drive ■ Rockford, TN 37853 ■ (800) 264-0870 ■ www.nisuscop.com

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Green Pest Control Solutions

CymexTM

- Kills and Prevents Fleas • Kills Bed Bugs on Contact
- Also Controls and Prevents Carpet Beetles, Dust Mites and Household Fungus.

For Use In Apartments, Boats, Factories, Food Processing Plants, Garages, Homes, Hospitals, Hotels, Kennels, Motels, Offices, Restaurants, Schools, Supermarkets, Trains, Trucks, Veterinary Areas, Warehouses and Zoos.

ACTIVE INGREDIENT:

Disodium Octaborate Tetrahydrate (CAS No. 12280-41-2)..... 8.5%

OTHER INGREDIENTS 91.5%

TOTAL 100.0%

EPA Reg. No. 64405-6 EPA Est. 64405-TN-1

Keep Out of Reach of Children CAUTION

Notice

Read and understand the entire label before using. Use only according to label directions.

Before buying or using this product, read **Warranty Disclaimer** and **Limitation of Remedies** statement found elsewhere on this label. If terms are unacceptable, return unopened package to seller for full refund of purchase price. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under **Warranty Disclaimer** and **Limitation of Remedies**.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Product Information

Do not use in edible product areas of food handling establishments, restaurants or other places where food is commercially prepared. Do not use in serving areas while food is exposed. Do not contaminate feed and foodstuffs. Do not enter or allow others to enter treated areas until spray has dried. Treated areas must not be occupied during application. In hospitals, patients must be removed prior to treatment of the area. Ventilate area for 2 hours before returning patients.

Do not apply CYMEX to wood floors, linoleum or ceramic tile surfaces due to the possible creation of a slippery surface or light residue. Do not walk on surfaces treated with CYMEX until completely dry. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

Application Instructions

Fleas: Thoroughly vacuum all furniture, upholstery, carpeting, rugs and pet bedding before application. Seal and discard vacuum bag and collected debris. Remove people and pets during product application and allow treatment to completely dry before reintroducing people or pets into treated areas. Best results are obtained when combined with a simultaneous treatment of pets using a product approved for use on pets. Although CYMEX will kill adult fleas within 48 to 72 hours, better knock-down of adult fleas may be obtained by simultaneous use of another approved insecticide.

Apply to carpets, area rugs, draperies, upholstery and floor cracks. Apply using a fine, uniform spray to carpets and area rugs at the rate of 1 gallon of solution per 750 to 1,250 square feet of surface, depending upon density and thickness. **Treat to**

dampness but do not saturate. Entire rug and carpeting areas may be treated.

Pay particular attention to application of pet bedding and resting areas. Apply in cracks and crevices along baseboards and around floor coverings as well as under furniture and furniture cushions. Cement and concrete floors may also be treated using a rate of 1 gallon of solution per 1,250 square feet of surface area.

Note: Freshly treated concrete floors may be slippery.

Carpet Beetles, Dust Mites and Household Fungus: Thoroughly vacuum before treatment and seal and discard bag with collected debris. Apply as a fine, uniform spray to affected areas of carpets, rugs or upholstery at the rate of 1 gallon of solution per 750 to 1,250 square feet of area, depending upon density and thickness. Treat to dampness but do not saturate. Entire areas of rugs and carpeting may be treated.

To Kill Bed Bugs: Apply at a rate of 3 – 5 oz per square foot of treatment area. Apply as a contact treatment onto active bedbug infestations in cracks and crevices on and around baseboards, floorboards, bed frames, headboards, furniture, window frames, door frames, walls, wall hangings and millwork. Apply as a topical spray application to mattresses, box springs, carpets, walls, furniture, rugs and other floor coverings. Treat folds, seams and tufts in mattresses, sofas and other furniture where bedbugs harbor.

Do not apply as a surface spray to wood floors, linoleum or ceramic tiles due to the possible creation of a slippery surface or light residue. Do not walk on, lay or sit on treated surfaces until dry. Always test fabrics for color fastness before application by treating in an inconspicuous area first.

Cleanup: Use soap and water to clean up tools.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

Storage: Store in a cool, dry (preferably locked) storage area inaccessible to children and pets. Do not freeze. **Container Disposal:** Non-refillable container; do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

WARRANTY LIMITATIONS AND DISCLAIMER

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. **TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

Inherent Risks of Use

The directions for use of this product are believed to be adequate and must be carefully followed. It is impossible to eliminate all risks associated with use of this product. Lack of performance or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, the presence of other materials, climatic conditions or the manner of use/application, all of which are beyond the control of the Manufacturer. The buyer/user assumes all such risks.

Limitation of Remedies

To the extent not prohibited by applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability or other legal theories) shall be limited to, at Manufacturer's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent not prohibited by applicable law: a) Manufacturer shall not be liable for losses or damages resulting from handling or use of this product unless Manufacturer is promptly notified of such loss or damage in writing; and b) **IN NO CASE SHALL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR LOSSES, INCLUDING WITHOUT LIMIT, HEALTH RELATED DAMAGES OR INJURIES.**

The terms of this **Warranty Disclaimer** and **Limitation of Remedies** cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Manufacturer or the seller is authorized to vary or exceed the terms of this **Warranty Disclaimer** or **Limitation of Remedies** in any manner.



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Made in the U.S.A.

MATERIAL SAFETY DATA SHEET**CYMEX™**

Health Emergencies: CHEMTREC® (800) 424-9300

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Manufacturer: Nisus Corporation
100 Nisus Drive
Rockford, TN 37853
(800) 266-0870

Product Trade Name: **CYMEX™**
EPA Registration No. 64405-6
Chemical Family: Glycol borate solution
Formula: Proprietary Mixture CAS No.: N/A

SECTION 2 - INGREDIENTS INFORMATION

8.5% Disodium Octaborate Tetrahydrate, CAS No.: 12008-41-2
91.5% water and mixed glycols (monoethylene and polyethylene glycols are used in the manufacturing process)

SECTION 3 - HEALTH HAZARD INFORMATION

Hazard Rating: NFPA	Health	1	Slight hazard
	Flammability	0	
	Reactivity	0	

Material or Component: Manufactured using 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.)

EYE CONTACT: Causes moderate 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. Harmful if absorbed through skin.

INGESTION: Ingestion of large amounts may cause nausea, mental sluggishness followed by difficulty in breathing and heart failure, kidney and brain damage, possibly death.

INHALATION: Harmful if inhaled. Breathing high concentrations of vapors may cause nausea, dizziness or drowsiness, and irritation of the nose and throat. Preexisting lung disorders may be aggravated by exposure to this material.

SECTION 4 - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.

SKIN CONTACT: Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 minutes.

EYE CONTACT: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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 glycol and borate toxicity. If possible, do not leave victim unattended.

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

SECTION 5 - FIRE AND EXPLOSION 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 6 - ACCIDENTAL RELEASE MEASURES

PRECAUTIONS IN CASE OF RELEASE OR SPILL: Absorb with organic liquid absorbent. Do not let material or washwaters enter sewers or waterways. Where large release has occurred see ecological section.

SECTION 7 - HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS: Store between 40°F and 90°F. Do not store in direct sunlight. Keep containers tightly closed.
Store in areas not accessible to children and pets.
Do not store with strong oxidizers.
Locked storage is required for EPA registered materials.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: Good ventilation. When applying Cymex in confined spaces, provide ventilation or an exhaust system or use of a NIOSH-approved dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) with a prefilter approved for pesticides (MSHA/NIOSH approval prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval prefix TC-14G) or a NIOSH-approved respirator with any N, R, P or HE prefilter is recommended.
VENTILATION: Exhaust to ventilate.

Cymex is easily washed from eyes and skin.

US EPA requires the following personal protective equipment when applying registered materials:

PROTECTIVE GLOVES: Some materials that are chemical-resistant to this product are barrier laminate; butyl, nitrile, neoprene and natural rubbers ≥ 14 mils; polyethylene; polyvinyl chloride; and viton ≥ 14 mils. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

EYE PROTECTION: Use safety glasses, goggles or face shield.

OTHER PROTECTIVE EQUIPMENT: Applicators, mixers and other handlers must wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and protective eyewear. It is recommended that a source of clean water be available in the work area for flushing eyes and washing skin.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear viscous gel	Specific Gravity: 1.38 g/ml
% Volatile: 36% 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 10 - STABILITY AND REACTIVITY

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 11 - TOXICOLOGY

Cymex is of very low acute mammalian toxicity.

Acute oral LD₅₀ - greater than 5000 mg/kg body weight (Sprague-Dawley male and female rats).

Acute dermal LD₅₀ - greater than 2000 mg/kg body weight (New Zealand Albino male and female rabbits).

Acute inhalation LC₅₀ - 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.

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

The RfD for ethylene glycol is 2.0 mg/kg/day based on kidney toxicity in rats. US EPA has a high confidence in the study on which the RfD was based. The RfD is protective of animal demonstrated chronic and reproductive effects. Preexisting kidney disorders may be aggravated by exposure to this material.

Borates have been shown to have some chronic toxicity in animals fed high doses, similar to that of alcohol, but this has not been found in humans.

SECTION 12 - ECOLOGICAL INFORMATION

General: Boron (B) is the element in disodium octaborate tetrahydrate (the active ingredient in Cymex) which is used by convention to report borate product ecological effects. To convert disodium octaborate tetrahydrate into the equivalent boron (B) content, multiply by 0.2096. Cymex contains 8.4% B by weight.

Phytotoxicity: Boron is an essential micronutrient for healthy growth of plants; however, it can be harmful to boron sensitive plants (e.g. grass and ornamentals) in high quantities.

Algal Toxicity: Green algae, *Scenedesmus subspicatus*

96-hr EC₁₀ = 24 mg B/L

Invertebrate Toxicity: Daphnids, *Daphnia magna straus*

24-hr EC₅₀ = 242 mg B/L

Test substance: sodium tetraborate

Fish Toxicity:

Seawater:

Dab, *Limanda limanda*

96-hr LC₅₀ = 74 MG B/LL

Freshwater:

Rainbow trout, *S. gairdneri* (embryo-larval stage)

24-day LC₅₀ = 88 mg B/L

32-day LC₅₀ = 54 mg B/L

Goldfish, *Carassius auratus* (embryo-larval stage)

7-day LC₅₀ = 65 mg B/L

3-day LC₅₀ = 71 mg B/L

The LC₅₀ of ethylene glycol = 9500 to 51,000 mg/l depending on organism, so is of no relevance. See above boron ecological information.

In the event of accidental environmental release, dilute with water.

Cymex is rapidly diluted to natural background micronutrient levels of boron, and the organic glycol components are biodegraded by microorganisms with a half-life of between 1 and 10 days (90% in one day using OECD 302B Test).

SECTION 13 - DISPOSAL CONSIDERATION

Make up only the amount of solution to be used that day. Excess solution can be used in treatment or further diluted with water and this diluted solution used to dilute product in future applications.

WASTE DISPOSAL METHOD: Unopened containers may be returned to Nisus corporation for reprocessing. Contact your State Pesticide, Environmental Control Agency or local authorities for proper disposal guidelines. Most sewage facilities will allow discharge to sewage of small volumes. Very large volume can retard sewage processing.

SECTION 14 - TRANSPORTATION INFORMATION

DOT Hazard Classification: Not Regulated

SECTION 15 - REGULATORY INFORMATION

EPA Registration No. 64405-1

Chemical Family: Glycol borate solution

Hazard Rating: NFPA	Health	1	Slight hazard
	Flammability	0	
	Reactivity	0	

SECTION 16 - OTHER INFORMATION

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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