

MATERIAL SAFETY DATA SHEET (MSDS)

THE ECOLOGY WORKS® DUSTMITE AND FLEA CONTROL

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: DUSTMITE AND FLEA CONTROL

MANUFACTURER:
THE ECOLOGY WORKS, INC
P.O. Box 187
Hobe Sound, FL 33475

GRADES: Commercial, Technical, Low Sulfate

CHEMICAL FORMULA: $\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4\text{H}_2\text{O}$

CHEMICAL NAME/SYNONYMS: Disodium Octaborate Tetrahydrate

CHEMICAL FAMILY: Inorganic Borates

CAS REGISTRY NUMBER: 12280-03-4

TSCA Inventory Number: 12008-41-2

EPA REGISTRY NUMBER: 67419-1

EMERGENCY PHONE NUMBER:

1-800-222-1222

NFPA CLASSIFICATION:

Health 0
Flammability 0
Reactivity 0

HMS CLASSIFICATION:

Red (Flammability) 0
Yellow (Reactivity) 0
Blue (Acute Health) 1*
* Chronic Effects

SECTION II - HAZARD IDENTIFICATION

OVERVIEW: DUSTMITE AND FLEA CONTROL is a white, odorless, powdered substance that is not flammable, combustible, or explosive, and it presents no unusual hazard if involved in fire. DUSTMITE AND FLEA CONTROL presents little or no hazard (to humans) and has low acute oral and dermal toxicity.

POTENTIAL ECOLOGICAL EFFECTS: Large amounts of DUSTMITE AND FLEA CONTROL can be harmful to boron sensitive plants and other ecological systems.

POTENTIAL HEALTH EFFECTS:

ROUTES OF EXPOSURE: Inhalation is the most significant route of exposure in occupational and other settings. Dermal exposure is not a concern because DUSTMITE AND FLEA CONTROL is not absorbed through intact skin.

INHALATION: Occasional mild irritation effects to nose and throat may occur from inhalation of DUSTMITE AND FLEA CONTROL dusts at levels greater than 10mg/m.

INGESTION: Products containing DUSTMITE AND FLEA CONTROL are not intended for ingestion. DUSTMITE AND FLEA CONTROL has a relatively low acute toxicity. Small amounts (e.g. one teaspoon) swallowed accidentally are not likely to cause effects; swallowing amounts larger than that may cause gastrointestinal symptoms.

EYE CONTACT: DUSTMITE AND FLEA CONTROL is non-irritating to eyes in normal industrial use.

SKIN CONTACT: DUSTMITE AND FLEA CONTROL does not cause irritation to intact skin.

TARGET ORGANS: No target organ has been identified in humans. High dose animal ingestion studies indicate the testes are the target organs in male animals, though human studies have shown no such results.

SIGNS and SYMPTOMS of EXPOSURE: Symptoms of accidental over exposure to DUSTMITE AND FLEA CONTROL have been associated with ingestion or by absorption through large areas of damaged skin. These include nausea, vomiting, and diarrhea with delayed effects of skin redness and peeling.

SECTION III - FIRST AID MEASURES:

INHALATION: No specific treatment is necessary since DUSTMITE AND FLEA CONTROL is not likely to be hazardous by inhalation. Prolonged exposure to dust levels in excess of regulatory limits should always be avoided.

EYE CONTACT: Use eye wash fountain or fresh water to cleanse eye. If irritation persists for more than 30 minutes, seek medical attention.

SKIN CONTACT: Wash with soap and water.

INGESTION: Swallowing less than one teaspoon will cause no harm to healthy adults. If larger amounts are swallowed give two glasses of water to drink and seek medical attention.

NOTE TO PHYSICIANS: Observation only if required for adult ingestion of less than 6 grams of DUSTMITE AND FLEA CONTROL. For ingestion in excess of 6 grams, maintain adequate kidney functions and force fluids. Gastric lavage is recommended

for symptomatic patients only. Hemodialysis should be reserved for massive acute ingestion or patients with renal failure. DUSTMITE AND FLEA CONTROL analysis of urine and blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment. (For further information: Litovitz T. L., Norman, S.A., Veltri, J.C., Annual Report of the American Association of Poison Control Centers data Collection System. Am. J. Emerg. Med 1986; 4:427-458).

SECTION IV - FIRE FIGHTING MEASURES

GENERAL HAZARD: NONE because DUSTMITE AND FLEA CONTROL is not flammable, combustible or explosive. The product itself is a flame retardant.

EXTINGUISHING MEDIA: Any fire extinguishing media may be used on nearby fires.

FLAMMABILITY CLASSIFICATION (29 CFR 1910.1200) Non-flammable solid.

SECTION V - ACCIDENTAL RELEASE MEASURES

GENERAL: DUSTMITE AND FLEA CONTROL is a water soluble, white powder that may cause damage to trees or vegetation by root absorption.

LAND SPILL: Vacuum, shovel or sweep up DUSTMITE AND FLEA CONTROL and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during clean up and disposal. No personal protective equipment is needed to clean up land spills.

SECTION VI - HANDLING AND STORAGE

STORAGE TEMPERATURE: Room Temperature (72 F)

STORAGE PRESSURE: Atmospheric

STORAGE CONDITIONS: Dry, indoor storage.

SHELF LIFE: DUSTMITE AND FLEA CONTROL is an inorganic naturally occurring borate, it will not react or decompose and will last indefinitely under ideal conditions. But since high moisture and temperature conditions can cause caking, it is advised that the product be used within one year.

SECTION VII - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust ventilation to keep airborne concentrations of DUSTMITE AND FLEA CONTROL dust below permissible exposure levels.

PERSONAL PROTECTION: Where airborne concentrations are expected to exceed exposure limits, NIOSH/MSHA certified respirators must be used. Eye goggles and gloves are not required for normal industrial exposures, but may be warranted if environment is excessively dusty.

OCCUPATIONAL EXPOSURE LIMITS: DUSTMITE AND FLEA CONTROL is listed by OSHA, Cal OSHA and ACGIH as "Particulate Not Otherwise Classified" or "Nuisance Dust."

OSHA: PEL* - 15 mg/m³ total dust and 5mg/m³ respirable dust

ACGIH: TIV * - 10mg/m³

Cal OSHA: PEL* - 10mg/m³ *PEL="Permissible Exposure Limit" *TIV="Threshold Limit Value"

SECTION VIII - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White, odorless, crystalline solid

SPECIFIC GRAVITY: 1.9

SOLUBILITY IN WATER: 9.7% (20 C)

AVERAGE BULK DENSITY 25-35 pounds per cubic foot

pH: 8.0 (5% solution) 7.6 (10% solution)

SECTION IX - TOXICOLOGICAL INFORMATION

INGESTION (ACUTE ORAL TOXICITY): Low acute oral toxicity;

LD₅₀ in rats is 2550 mg/kg of body weight.

SKIN (ACUTE DERMAL TOXICITY): Low acute dermal toxicity; LD₅₀ in rabbits is greater than

2000 mg/kg of body weight. DUSTMITE AND FLEA CONTROL is not absorbed through intact skin.

PRIMARY SKIN IRRITATION INDEX: 0 (zero) DUSTMITE AND FLEA CONTROL is non-corrosive.

EYE: Draize test in rabbits produced mild eye irritation effects.

SECTION X - ECOLOGICAL INFORMATION

PHYTOTOXICITY: Although boron is an essential micronutrient for healthy growth of plants, it can be harmful to boron-sensitive plants in higher quantities. Care should be taken to minimize the amount of DUSTMITE AND FLEA CONTROL released to the environment.

PERSISTENCE/DEGRADATION: Boron is naturally occurring and ubiquitous in the environment.

SOIL MOBILITY: DUSTMITE AND FLEA CONTROL is soluble in water and is leachable through normal soil.

SECTION XI - DISPOSAL

DISPOSAL GUIDANCE: Small quantities of DUSTMITE AND FLEA CONTROL can usually be disposed of at Municipal Landfill sites. No special disposal treatment is required, but refer to state and local regulations for applicable site-specific

requirement. Tonnage quantities of product are not recommended to be sent to landfills. Such product should be re-used for an appropriate application.

RCRA (40 CFR 261): DUSTMITE AND FLEA CONTROL is not listed under any sections of the Federal Resource Conservation and Recovery Act (RCRA).

SECTION XII - TRANSPORT INFORMATION

DOT HAZARDOUS MATERIAL CLASSIFICATION: DUSTMITE AND FLEA CONTROL is not a U.S. Department of Transportation (DOT) Hazardous Material.

DOT HAZARDOUS SUBSTANCES CLASSIFICATION: DUSTMITE AND FLEA CONTROL is not a DOT Hazardous substance.

INTERNATIONAL TRANSPORTATION: DUSTMITE AND FLEA CONTROL has no U.N. Number and is not regulated under any international rail, highway, water or air transport regulations.

SECTION XIII - REGULATORY INFORMATION

RCRA: DUSTMITE AND FLEA CONTROL is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.)

SUPERFUND: CERCLA/SARA. DUSTMITE AND FLEA CONTROL is not listed under CERCLA or its 1986 amendments.

SAFE DRINKING WATER ACT: DUSTMITE AND FLEA CONTROL is not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq. Consult state and local regulations for possible water quality advisories regarding boron.

IARC: The International Agency for Research on Cancer (of the World Health Organization) does not lists or categorize DUSTMITE AND FLEA CONTROL

CALIFORNIA PROPOSITION 65: DUSTMITE AND FLEA CONTROL is not listed on any Proposition 65 lists of carcinogens or reproductive toxicants.