

Willert Home Products, Inc.  
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St. Louis, MO 63110

**EMERGENCY TELEPHONE NUMBER:** 314-772-2822 (8:30 AM to 4:30 PM CST)  
CHEMTREC 800-424-9300

## MATERIAL SAFETY DATA SHEET

### HMIS RATINGS

Health Hazard: 2  
Flammability Hazard: 2  
Reactivity Hazard: 0

Issue Date: 7/19/07  
Supersedes: 7/9/07

Product Name	EPA Reg. No.	Willert Product No.
Enoz Cedar Pine Moth Balls	1475-120	145
Enoz Old Fashioned Moth Flakes	1475-75	E10
Enoz Old Fashioned Moth Balls	1475-74	E20, E20D, E25
Naphthalene Moth Balls	1475-74	BALLSRS
Naphthalene Moth Flakes	1475-75	FLAKERS

(The information provided in this Material Safety Data Sheet is directed at occupational exposure and may not be applicable to consumer use of the product.)

### SECTION 2: COMPONENT INFORMATION

Ingredients	CAS Number	Concentration in Product
Naphthalene	91-20-3	98+ %

See SECTION 8 for recommended exposure limits.

### SECTION 3: HAZARDS IDENTIFICATION

#### Emergency Overview:

White flakes or balls. Flammable solid. Harmful if swallowed or absorbed through the skin. Dust, fumes or vapors can cause eye and respiratory tract irritation. Prolonged or repeated contact can cause skin sensitization.

#### Potential Health Effects:

**Relevant Routes Of Exposure:** Inhalation, Ingestion, Eye Contact, Skin Contact.

#### Acute Effects:

**Ingestion:** May be harmful or fatal if swallowed. Can cause nausea, vomiting, abdominal pain, headache, confusion, restlessness, lethargy, acute hemolysis and methemoglobinemia.

**Eyes:** Dust, fumes and vapors may cause eyes irritation.

**Inhalation:** Dust, fumes and vapors can cause respiratory tract irritation.

**Skin:** Repeated or prolonged contact could cause skin irritation. Naphthalene can be absorbed through the skin and may cause systemic toxicity. Dermal contact may cause hypersensitive dermatitis.

**Carcinogenicity:** IARC – There is inadequate evidence in humans for the carcinogenicity of naphthalene but sufficient evidence in experimental animals for carcinogenicity: Group 2B, possibly carcinogenic to humans. EPA's Integrated Risk Information System (IRIS) – Available data are inadequate to establish a causal association between exposure to naphthalene and cancer in humans.

**Reproductive Effects:** None known.

**Target Organs:** Ocular, respiratory, dermal, central nervous system, hemopoietic, and gastrointestinal.

**Medical Conditions Aggravated By Exposure:** None known.

## SECTION 4: FIRST AID PROCEDURES

### First Aid Procedures:

**EYES:** Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Remove contact lenses, if present, after the first five minutes and continue rinsing the eye. If irritation persists, call a physician or poison control center immediately.

**SKIN:** Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothing before reuse. If irritation occurs, get medical attention.

**INHALATION:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**INGESTION:** Do not give anything by mouth to an unconscious person. Call poison control center or doctor immediately for treatment advice. Have person rinse the mouth with water. If able to swallow, have the person sip a glass of water. Do not induce vomiting unless told to do so by a poison control center or doctor.

## SECTION 5: FIRE HAZARDS

**Unusual Fire and Explosion Hazards:** Combustible in presence of open flame and sparks. Material in powder form is capable of creating dust explosion. Yields flammable vapors on heating above the melting point. Forms explosive mixture with air.

### Fire Fighting Procedures:

NIOSH approved positive pressure, self-contained breathing apparatus and full protective turnout gear.

Evacuate personnel to an area upwind to avoid smoke and vapors.

Remove containers of this material if it can be done safely.

Use water to keep fire exposed containers cool.

Protective clothing and equipment must be decontaminated if contact with the material or vapors has occurred.

**Extinguishing Media:** All common extinguishing media are suitable.

**Conditions to Avoid:** Contact with acids and oxidizing agents.

**Hazardous Combustion Products:** Produces oxides of carbon CO and CO<sub>2</sub> and may produce irritating and toxic smoke and fumes.

**Flash Point:** Open cup: 174<sup>0</sup> F (79<sup>0</sup> C) Closed cup: 190<sup>0</sup> F (88<sup>0</sup> C)

**Flammability Limits: Lower:** 0.9% **Upper:** 5.9%

**Autoignition Temperature:** 526<sup>0</sup> C

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Pre-Entry Spill Procedure:**

Shut off source of spill if it is safe to do so.

Review Section 3 - Hazards Identification and Section 8- Exposure Control/Personal Protection before proceeding with the clean up.

### **Clean Up and Containment:**

Scoop or shovel spilled material into suitable labeled containers with a tight fitting lid.

Secure the drum cover and move the container to a safe holding area.

Check area for residual material and repeat clean up if detected.

**Environmental Concerns:** None known.

### **Treatment and Disposal:**

Decontaminate or dispose of all protective clothing and equipment.

See Section 13 - Disposal Recommendations for disposal information.

### **Reporting Requirements:**

Report all releases which are likely to endanger the public health, harm the environment, or cause complaint to the appropriate State or Local officials.

**CERCLA Reportable Quantities:** 100 lbs. (45.4 kg).

## **SECTION 7: HANDLING AND STORAGE**

### **General Measures:**

Keep away from heat, sparks or flame (avoid all ignition sources).

Store in a cool and well-ventilated area. Do not store above 38<sup>0</sup> C (100.4<sup>0</sup> F).

Keep container tightly closed

Do not generate dust.

### **Materials or Conditions to Avoid:**

Contact with acids, and oxidizing agents.

Elevated temperatures. Do not store above 38<sup>0</sup> C (100.4<sup>0</sup> F).

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Recommended Exposure Limits:

Naphthalene: ACGIH TLV: 10 ppm (52 mg/m<sup>3</sup>) 8-hr TWA\*  
STEL: 15 ppm (79 mg/m<sup>3</sup>)

\*Skin- danger of Cutaneous absorption.

OSHA PEL: 10 ppm (50 mg/m<sup>3</sup>) 8-hr TWA

### General Hygienic Practices:

Do not get on eyes, skin, or clothing.

Do not breathe dust, vapors or fumes.

Wash thoroughly after handling.

**Eyewear:** Chemical goggles.

**Skin:** Gloves are recommended if there is a potential for skin contact. A plastic or rubber glove which provides a physical barrier to the powder is required. Use disposable spun polyolefin (e.g. Tyvek) coveralls or equivalent to protect against contact. Consult the glove and clothing manufacturers, suppliers and/or industrial hygienist for further information.

**Respiratory Protection:** Respiratory protection is required whenever air contamination (dust, mist, or vapors) is generated by the process. A NIOSH approved high efficiency toxic dust/mist/fume respirator is recommended.

### Work Practices and Engineering Controls:

General room ventilation is adequate unless the process generates dust or fumes.

Remove all sources of ignition (flame or sparks).

Prevent the accumulation of dust in the work area by thorough periodic cleaning of the area.

**Protective Measures During Repair and Maintenance:** No special measures are required. Follow the recommendation for personal protective equipment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

The following information pertains to boric acid.

**Appearance:** White balls or flakes.

**Odor:** Characteristic. **Odor Threshold:** >0.3 ppm

**Taste:** Not determined.

**pH:** Not applicable.

**Volatile (Wt. or Vol.), %:** Not determined.

**Moisture Content, (Wt.) %:** Not determined.

**Solubility in Water:** 31 mg/L at 25<sup>0</sup> C.

**Solubility - other solvents:** Methanol, ethanol, ether, benzene, toluene.

**Specific Gravity/Bulk Density:** Variable with product.

**Vapor Pressure:** 0.085 mm Hg at 25<sup>0</sup> C.

**Vapor Density (air = 1):** 4.42.

**Evaporation Rate:** < butyl acetate

**Boiling Point:** 217.9<sup>0</sup> C.

**Melting Point:** 80.2<sup>0</sup> C.

**Autoignition Temperature:** 526<sup>0</sup> C.

## SECTION 10: STABILITY AND REACTIVITY

**General Stability Considerations:** Stable at room temperature.

**Incompatible Materials:** Oxidizing agents, acids.

**Hazardous Decomposition Products:** Not determined.

**Hazardous Polymerization:** Does not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Acute Toxicity:** Oral – human adult LD<sub>50</sub> = 29-74 mg/kg; Oral – human child LD<sub>50</sub> = 100 mg/kg; Oral – rat LD<sub>50</sub> = 490 mg/kg; Oral – mouse LD<sub>50</sub> = 316 mg/kg; Oral - dog LD<sub>50</sub> = 400 mg/kg; Oral - cat LD<sub>50</sub> = 1000 mg/kg; Oral - rabbit LD<sub>50</sub> = 3000 mg/kg; Oral – guinea pig LD<sub>50</sub> = 1200 mg/kg; Inhalation - rat 1 hour LCL<sub>50</sub> = >340 mg/m<sup>3</sup>; Dermal – rat LD<sub>50</sub> = >2500 mg/kg; Dermal – rabbit LD<sub>50</sub> = 20 g/kg .

**Reproductive/Teratogenicity Effects:** Oral dosing studies in rats and rabbits, at levels that cause some maternal toxicity, did not show effects on fetal viability, or morphological development.

**Mutagenicity/Genotoxicity Information:** Naphthalene was generally negative in mutagenicity assays with bacteria and mammalian cells.

**Carcinogenicity and Chronic Toxicity:** Based on human and animal data, the human carcinogenic potential of naphthalene via the oral, dermal or inhalation routes cannot be determined. Oral and intraperitoneal dosing of rats, with naphthalene, produced no carcinogenic response. No carcinogenic activity was seen in hairless mice, after dermal dosing, with naphthalene. The National toxicology program (NTP) conducted chronic inhalation studies in rats and mice. They reported the evidence of carcinogenicity was clear evidence in rats, no evidence in male mice and some evidence in female mice.

## SECTION 12: ECOLOGICAL INFORMATION

**Environmental Fate: Naphthalene:** log P (octanol-water) 3.3

**Ecotoxicity:** Fathead minnow (Pimephales promelas) 24 hour LC<sub>50</sub> = 7.76 mg/L, 48 hour LC<sub>50</sub> = 6.35 mg/L; mg/kg; Shrimp (Pandalus goniurus) 96 hour LC<sub>50</sub> = 2.2 mg/L; Pink salmon (Oncorhynchus gorbuscha) 96 hour LC<sub>50</sub> = 1.4 mg/L.

## SECTION 13: DISPOSAL RECOMMENDATIONS

**Waste Disposal Method:** RECA : U165 as stipulated in 40 CFR 261.33, Dispose of material and containers in accordance with all applicable federal, state, and local environmental regulations. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. 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.

## SECTION 14: TRANSPORTATION INFORMATION

### Domestic (Land, D.O.T.)

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**Proper Shipping Name:** NAPHTHALENE, REFINED

**Hazard Class:** 4.1

**UN/NA:** UN1334

Packing Group: III

### International (Water, I.M.O.)

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**Proper Shipping Name:** NAPHTHALENE, REFINED

**Hazard Class:** 4.1

**UN/NA:** UN1334

Packing Group: III

### International (Air, I.C.A.O.)

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**Proper Shipping Name:** NAPHTHALENE, REFINED

**Hazard Class:** 4.1

**UN/NA:** UN1334

Packing Group: III

## SECTION 15: REGULATORY INFORMATION

**California Proposition 65 List:** Listed as a carcinogen. **WARNING:** This product contains Naphthalene, a chemical known to the state of California to cause cancer. California No Significant Risk Level: 5.8 ug/day NSRL

**CERCLA Hazardous Substances and corresponding RQs:** 100 lb final RQ; 45.4 kg final RQ

**SARA Section 302 Extremely Hazardous Substances:** None of the chemicals in this product have a TPQ.

**SARA Codes:** immediate, delayed, fire.

**Section 313:** This material contains Naphthalene, which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Water Act:** Naphthalene is listed as a Hazardous Substance under the CWA. Listed as a Priority Pollutant under the Clean Water Act and as a Toxic Pollutant under the Clean Water Act.

**STATE:** Naphthalene can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

## **SECTION 16: OTHER INFORMATION**

**California Prop 65: The following statement(s) is made in order to comply with the California Safe Drinking Water Act:**

WARNING: This product contains a chemical known to the state of California to cause cancer. **California No Significant Risk Level:** 5.8 u/day NSRL

**WHMIS Classification (Canada):** Class B-4; Flammable solid. Class DSL: Naphthalene.

## LIST OF ACRONYMS

**ACGIH:** American Conference of Governmental Industrial Hygiene  
**AIHA WEEL:** American Industrial Hygienists Association - Workplace Environmental Exposure Level  
**ANSI:** American National Standards Institute  
**C:** Ceiling  
**California Prop. 65:** California Safe Drinking Water and Toxic Enforcement Act (Prop 65)  
**Canadian WHMIS:** Canadian Workplace Hazardous Materials Information System Ingredient Disclosure  
**CASRN:** Chemical Abstracts Service Registry Number  
**CERCLA:** Comprehensive Emergency Response, Compensation and Liability Act  
**DOT:** U. S. Department of Transportation  
**HMIS:** Hazardous Materials Identification System  
**IARC:** International Agency for Research on Cancer  
**IATA:** International Air Transport Association  
**IMO:** International Maritime Organization  
**N/A:** Not Applicable  
**NOR:** Not Otherwise Regulated  
**NTP:** National Toxicology Program  
**OSHA:** Occupational Safety and Health Administration  
**PEL:** OSHA Permissible Exposure Limit  
**RCRA:** Resource Conservation and Recovery Act  
**RQ:** Reportable Quantity  
**SARA:** Superfund Amendment Reauthorization Act  
**STEL:** Short-Term Exposure Limit  
**TLV:** Threshold Limit Values (registered trademark of ACGIH)  
**TPQ:** Threshold Planning Quantity  
**TSCA:** Toxic Substances Control Act  
**TWA:** Time Weighted Average

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The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty, or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.