

# SAFETY DATA SHEET: TotalNema A<sub>x</sub>

## 1. IDENTIFICATION

**GENERAL USE:** Nematicide

**COMMON NAME:** TotalNema Nematicide

**MANUFACTURED BY:** BioWorks  
 100 Rawson Rd, Suite 205  
 Victor, NY 14564

**EMERGENCY TELEPHONE NUMBERS:** BioWorks: 800-877-9443  
 CHEMTREC: 800-424-9300 (for USA and Canada)

## 2. HAZARDS IDENTIFICATION

**Signal Word:** WARNING



**Pictogram:**

GHS Classification:

Signal Word: Caution

Hazard Statement:

May cause an allergic skin reaction

Precautionary Statements:

Wear eye/face protection and use in well ventilated areas.

Avoid breathing spray, mist or vapors and wash thoroughly after use.

Wear long sleeve shirt, long pants, socks, shoes and chemical resistant gloves.

Unclassified Hazards:

Ingredients with Unknown

Toxicity: None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product contains the following ingredients:

COMPONENT	CAS No.	%	OSHA PEL	ACGIH
<i>Eugenol</i>	97-53-0	1% - 2%	N/E	N/E
<i>Castor Oil (USP)</i>	8001-78-3	0.9% - 1.1%	N/E	N/E
Clove Oil	8000-34-8	0.1% - 1%	N/E	N/E

N/E = Not Established

The specific chemical identities and percentages of composition have been withheld as trade secrets.

#### 4. FIRST-AID MEASURES

**INGESTION:** Do not induce vomiting. Rinse victim's mouth with plenty of water. See a doctor.

**INHALATION:** Keep person at rest in a well-ventilated area and seek medical attention if symptoms occur.

**SKIN CONTACT:** Wash exposed skin with soap and water, in a sufficient amount of water to remove material. Get medical advice if skin irritation persists.

**EYE CONTACT:** Wash with plenty of water for at least 15 minutes. Remove contact lenses after 5 minutes if present and continue rinsing eye. Get medical attention if irritation persists.

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#### 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** Not applicable.

**AUTOIGNITION TEMPERATURE:** Not determined

**EXTINGUISHING MEDIA:** Not combustible.

**SPECIAL FIRE-FIGHTING PROCEDURES:** Use water mist, alcohol resistant foam, carbon dioxide (CO<sub>2</sub>) or dry chemical powder. Do not apply water jets directly.

**UNUSUAL FIRE and EXPLOSION HAZARDS:** Combustion of the chemical or its packaging can form irritating and toxic gases such as monoxide and carbon dioxide.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition will produce oxides of carbon and silicon.

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#### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:** Positive pressure self-contained breathing apparatus (SCBA) with full protective clothing. Containers and tanks involved in the fire should be cooled with water mist. Wear appropriate protective equipment. Keep unauthorized persons away.

**FOR PERSONNEL WHO ARE NOT PART OF THE EMERGENCY SERVICES:** Wear protective equipment. Isolate and flag the area. Do not smoke. Avoid contact with the product.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** In case of spill, collect material immediately. Wipe residual material from surfaces with cloth. Do not wash residues into drains or other waterways.

Isolate the area. Prevent the spread of spilled material. Prevent spilled material from reaching waterways and sewers. Leaks should be reported to the manufacturer and / or environmental agencies.

Isolate spill or leak area to a radius of 50 meters at least in all directions. Use natural dikes or barriers to contain product leakage. Absorb with inert absorbent material (sand, diatomite, vermiculite). If it is possible to seal the leak by using bungs, sealing tape or by inverting the hole / tear / dent up. Collect all material in suitable, properly labeled containers for later treatment and disposal. Waste must be disposed of in accordance with Local, State or Federal environmental legislation. For transshipment check an appropriate location and perform the safety procedures described above.

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#### 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Handle in a well-ventilated area or general local exhaust / ventilation system. Avoid formation of vapors and mists. Avoid contact with incompatible materials. Adopt personal protective measures. Observe the expiration date. Do not reuse the empty package. Do not wash containers in lakes, fountains, rivers and other bodies of water. Do not eat, drink or smoke while handling the product. Wash after handling, especially before meals. After work, remove protective clothing and bathe.

**PESTICIDE STORAGE:** Do not contaminate water or food. Do not reuse or refill containers. Store in covered, dry and well-ventilated area. Protect packaging from physical damage. Keep container tightly closed when not in use. Keep away from incompatible materials, odorous or toxic substances.

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## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**EXPOSURE LIMITS:** Not available

### PERSONAL PROTECTION:

<b>Eye/face protection:</b>	Eye protection (wide vision safety glasses)
<b>Skin and body protection:</b>	Apron, safety shoes, gloves
<b>Respiratory protection:</b>	Respiratory protection mask
<b>Thermal hazards:</b>	There are no thermal hazards related to this product.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Liquid, White
<b>ODOR:</b>	Characteristic odor
<b>ODOR THRESHOLD:</b>	Not available
<b>pH:</b>	7.43
<b>MELTING POINT:</b>	Not available
<b>BOILING POINT:</b>	Not available
<b>FLASH POINT:</b>	Not available
<b>EVAPORATION RATE:</b>	Not available
<b>FLAMMABILITY/EXPLOSIVE LIMITS:</b>	Not available
<b>VAPOR PRESSURE at 50°C:</b>	Not available
<b>VAPOR DENSITY:</b>	Not available
<b>BULK DENSITY at 20°C:</b>	1 g/cm <sup>3</sup>
<b>SOLUBILITY in water:</b>	Miscible in water
<b>PARTITION COEFFICIENT:</b>	Not available
<b>AUTO-IGNITION TEMPERATURE:</b>	Not available
<b>DECOMPOSITION TEMPERATURE:</b>	Not available
<b>VISCOSITY at 20°C:</b>	Not available

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**10. STABILITY AND REACTIVITY**

**REACTIVITY:** Not reactive under normal conditions of use.

**STABILITY:** Stable under normal recommended storage and handling conditions

**HAZARDOUS POLYMERIZATION:** Will not occur.

**INCOMPATIBILITY:** Avoid high temperatures

**HAZARDOUS THERMAL DECOMPOSITION PRODUCTS:** No hazardous decomposition products known

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**11. TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY:** Not available

**SKIN CORROSION/IRRITATION:** Not available

**SERIOUS EYE DAMAGE/EYE IRRITATION:** Not available

**RESPIRATORY OR SKIN SENSITIZATION:** May cause an allergic skin reaction with itching and acne.

**GERM CELL MUTAGENICITY:** Not available

**CARCINOGENICITY:** Not available

**TOXICITY TO REPRODUCTION:** Not available

**SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Not available

**SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not available

**ASPIRATION HAZARD:** Not available

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**12. ECOLOGICAL INFORMATION**

Not available

**13. DISPOSAL CONSIDERATIONS**

Recycle this container if appropriate. Dispose or incinerate according to your state's recommended procedures. Follow your local waste disposal agency instructions for any leftover product in the container.

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**14. TRANSPORT INFORMATION**

**PROPER SHIPPING NAME:** Not regulated

**Land: ADR / RID Class:** Not Regulated

**US DOT:** Not Regulated

**Canadian TDG:** Not Regulated

**Water: IMDG Class:** Not Regulated

**Air: IATA - DGR Class:** Not Regulated

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**15. REGULATORY INFORMATION**

**CAUTION**

29 CFR 1910.1200, Hazard Communication 29 CFR 1910.272, Grain Handling Facilities Regulation 1272:2008: GHS, United Nations, 3th Revised Edition, 2009 UN Recommendations on the TRANSPORT OF DANGEROUS GOODS. Model Regulations, 19th Edition, 2009. Globally Harmonized System of Classification of Chemicals (GHS), 5th Edition, 2013

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## **16. OTHER INFORMATION**

**DATE OF PREPARATION:** 26 January 2026

**CONTACT:** BioWorks  
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