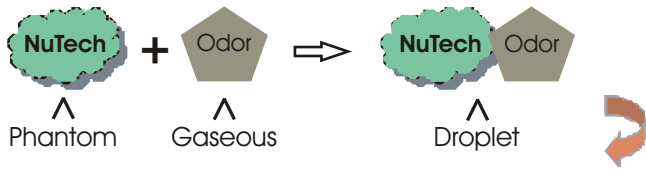


# Phantom-99® Odor Counteractant



Phantom-99 counteractant is a complex blend of essential oils, odiferous organic compounds found in plants. Phantom-99 works through the process of odor counteraction to reduce odor complaints.

The odor counteraction of Phantom-99 is a series of absorption and decomposition processes converting odor molecules into non-volatile compounds-reducing both their odor concentration and intensity. Phantom-99 is optimized to eliminate the odors created by composting.

Phantom-99 is non-toxic, non-corrosive in nature, making it ideal for a wide variety of applications. Phantom-99 is safe to handle, fog or spray in areas where there will be human contact.

## Specifications

### Average Feed Rate Guideline

Topical:	Dilute Concentrate 100-1
Fogging Treatment:	.3 to .5 oz. per Nozzle per hour
In-duct Treatment:	1 oz. per 1,500 CFM of Air Flow per hour

**Drum, 55 gallon - Height:** 23.5 " Dia x 35" Tall

Shipping Weight: 480 lbs.

**Drum, 5 gallon - Size:** 9" x 11" x 15" Tall

Shipping Weight: 48 lbs.

**Typical Dilution/Use Rate:** 140-1 to 300-1

8 oz samples available

**Drum, 5 gal Concentrate - Size:** 9" x 11" x 15" Tall

Shipping Weight: 48 lbs.

Makes 55 Gallons Then dilute 140-1 to 300-1

Guidelines for calculating chemical usage are estimates only. Actual usage is effected by odor concentration, temperature, particulate levels, etc.

## Applications

- Compost preparation areas
- Compost site Perimeter
- Open windrow areas
- Windrow turning-treatment during turning operations
- Municipal, industrial and manufacturing sites where odors are not contained
- Exhaust stacks, roof and wall fan discharges, non-food open processing areas, enclosed rooms with non-contained odor sources

## Application Areas

- Composting Operations
  - Sludge Waste
  - Organic Waste
  - Green Waste
  - Manure

## Types of Odors Treated

- Amine Compounds
- Mercaptans
- Organic Acid Odors
- Animal Waste Odors
- Low Levels H<sub>2</sub>S (open areas)

## Phantom-99 Tested to Reduce:

Odorous Substance	Control Sample	Phantom-99
NH <sub>3</sub>	37 mg/m <sup>3</sup>	<19 mg/m <sup>3</sup>
Acetaldehyde	100%	not detectable
2methyl1propanol	100%	not detectable
Acetone	100%	14%

## HLS Ecolo Application Systems

- LMC™ High Pressure Fogging System
- Mist Pro® Chemical Dilution & Feed System
- Windrow-Mate™ Odor Control System
- Hose End Sprayer, Model 381

*Technical Experts in Odor Control*

59 Penn Drive, Toronto, Ontario, Canada M9L 2A6

Tel: 416-740-3900 Fax: 416-740-3800

E-Mail: info@hlsecolo.com Website: www.hlsecolo.com

