## MATERIAL SAFETY DATA SHEET – HyperFect 256

### Section 1: Product & Company Identification

**Trade Name:** **NeutraFect**
**EPA Reg. No.** 47371-131-85023
**Product Class:** Quaternary Ammonium Compound
**Product Use:** Disinfectant/Cleaner
**Manufacturer:** Genesan, LLC
PO Box 400
Gorham, ME 04038
**Telephone** 877-854-0072

Transportation: (800) 424-9300 *
* For spill, leak, fire or transport accident emergencies

Date: June 12, 2008

### Section 2: Composition/Information on Ingredients

| Ingredient | CAS # | Wt. % |
|---|---|---|
| Alkyl dimethyl benzyl ammonium chloride ($C_{12-16}$) | 68424-85-1 | 6.76 |
| Didecyl dimethyl ammonium chloride | 7173-51-5 | 10.14 |
| Ethanol | 64-17-5 | 2 – 3 |

### Section 3: Hazards Identification

**Emergency Overview**

Direct contact may produce severe eye and skin irritation and/or burns and possible irreversible damage. Solvent vapors or mists of product can produce irritation of the mucous membranes. Ingestion can produce immediate burning pain in the mouth, throat and abdomen; severe swelling of the larynx; skeletal muscle paralysis affecting the ability to breathe; circulatory shock; and/or convulsions.

**Potential Health Effects:**

**Skin:** May cause corrosive burns. Brief exposures may cause irritation and defatting of the skin. Exposures not promptly washed off may lead to toxic effects similar to ingestion. Harmful if absorbed through the skin.

**Eyes:** Causes severe irritation and/or burns and may result in permanent injury to eyes including blindness.

**Inhalation:** Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, and drowsiness. Harmful if inhaled.

**Ingestion:** Ingestion can cause gastrointestinal irritation, swelling of the larynx, difficulty in breathing, circulatory shock, convulsions and possibly death.

**Chronic:** Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.

### Section 4: First Aid Measures

**Eyes:** Immediately flush eyes with water for 15-20 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.

**Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Inhalation:** If symptoms are experienced, move victim 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:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

### Section 5: Fire Fighting Measures

| | |
|---|---|
| **Flash Point:** | None when heated to 105°C – Tag Closed Cup |
| **Upper & Lower Flame Limits** | Not determined. |
| **Extinguishing Media:** | Dry chemical, foam, carbon dioxide, water fog or any other agent suitable for surrounding fire. |
| **Fire Fighting Equipment & Instructions:** | Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray. |
| **Hazardous Combustion Products:** | Irritating and toxic gases or fumes may be released during a fire. |
| **Unusual Fire Explosion Hazards** | Combustion products are toxic. |

## Section 6: Accidental Release Measures

**Spill and Leak Procedures**

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|---|---|
| **Emergency Action:** | Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). |
| **Spill Cleanup:** | Ventilate closed spaces before entering. All equipment used when handling the product must be grounded. Floor will be slippery. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. |
| **Large Spills:** | Dike far ahead of liquid spill for later disposal. Pump into containers for disposal. |

## Section 7: Handling & Storage

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|---|---|
| **Handling Procedures:** | Avoid contact with skin and eyes. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. |
| **Storage Procedures:** | Keep the container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques. |

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** Provide adequate local exhaust ventilation (explosion proof) to maintain worker exposure below exposure limits.

**Personal Protective Equipment:**

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|---|---|
| **Eyes/Face:** | Wear chemical goggles. Use a face shield if splashing is possible. |
| **Skin:** | Use impervious gloves (rubber or neoprene). Wear suitable protective clothing. |
| **Respiratory:** | If exposure limits are exceeded or if irritation is experienced, a NIOSH/MSNA approved respirator or an organic/vapor removing cartridge respirator protection device should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations. |
| **General:** | Eye wash fountain and emergency showers are recommended. |

**The following ingredients have established exposure guidelines:**

| Ingredient | Exposure Guideline | Guideline Value |
|---|---|---|
| Ethanol<br>64-17-5 | ACGIH TLV (2005), OSHA PEL & NIOSH REL | 1000 ppm (TWA) |
| | Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, (Canada) | 1000 ppm (TWA) |
| | Ontario, Quebec (Canada) | 1000 ppm (TWAEV) |
| | Saskatchewan (Canada) | 1000 ppm (TWA), 1250 ppm (STEL) |
| | Yukon (Canada) | 1000 ppm (TWA), 1000 ppm (STEL) |
| | Mexico | 1000 ppm (TWA) |
| | ACGIH TLV (2005), OSHA PEL & NIOSH REL | 1000 ppm (TWA) |

All TWAs are for an 8-hour period and all STELs are for 15 minutes unless specifically noted as being for another time period.

## Section 9: Physical & Chemical Properties

| | |
|---|---|
| **Flash Point:** | None when heated to 105°C – Tag Closed Cup |
| **Specific Gravity:** | 1.006 (8.35lbs/gal) |
| **Percent Volatiles:** | Not determined. |
| **Vapor Pressure:** | Not determined. |
| **VOC Content** | ~ 20 |
| **Vapor Density:** | Estimated to be heavier than air. |
| **Viscosity:** | 13.61 $mm^2/s$ (cSt) @ 22°C |
| **Evaporation Rate:** | Not determined. |
| **Pour Point:** | Not determined. |
| **pH :** | 7.31 |
| **Appearance and Odor:** | Clear, colorless to straw colored liquid with benzaldehyde (organic) odor. |

## Section 10: Stability & Reactivity

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|---|---|
| **Chemical Stability:** | Material is stable. |
| **Conditions to Avoid:** | Keep away from heat and strong oxidizing agents. |
| **Incompatibilities:** | Strong oxidizing agents (may result in fire.), reducing agents. |
| **Hazardous Decomposition:** | Carbon monoxide, carbon dioxide and toxic hydrogen chloride vapors. |
| **Hazardous Polymerization:** | Will not occur. |

## Section 11: Toxicological Information

| | |
|---|---|
| **Carcinogenicity** | No Carcinogenicity data available for this product. |
| **Acute Oral LD50** | >1500 mg/kg for male and female rats. |
| **Acute Dermal LD50** | >2000 mg/kg for male and female rabbits. |
| **Primary Skin** | Severe irritant, corrosive. |
| **Primary Eye** | Severe irritant. |

**Chemicals Ingredients Listed as Potential or Known Carcinogens**

| Ingredient | OSHA | NTP | IARC |
|---|---|---|---|
| No ingredients listed in this section. | | | |

## Section 12: Ecological Information

**Ecotoxicity** No data available for this product but it is considered toxic to fish.

## Section 13: Disposal Considerations

**Disposal Instructions**

This substance, when discarded or disposed of, is a characteristic hazardous waste according to Federal regulation (40 CFR 261) and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264, and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

## Section 14: Transport Information

| | |
|---|---|
| **DOT Hazard Class** | 8 Corrosive |
| **DOT Proper Shipping Name** | Disinfectant Liquid Corrosive, NOS (Quaternary Ammonium Compound), 8, UN1903, PG III |

## Section 15: Regulatory Information

**TSCA Status**

While all ingredients are listed on the TSCA Chemical Inventory, this product is regulated as a pesticide under the Federal

Insecticide, Fungicide and Rodenticide Act (FIFRA) and not subject to the TSCA Inventory rules for FIFRA uses.

**Other Chemical Inventories**

All components of this product are listed on the following inventories: Canada (DSL), China, and Philippines. One or more ingredients are not listed on the following inventories: Australia, European Union, Japan and Korea.

**CERCL/SARA**

**SARA Title III, Sections 311/312** – This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in the 40 CFR 370:
**Classification of this product**: Immediate, Fire

**SARA Title 313** – This act requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities, as listed in 40 CFR 372, are met or exceeded:

| Chemical Name | CAS No. | Maximum Concentration | Comment |
|---|---|---|---|
| No ingredients listed in this section. | | | |

**Reportable Quantities/Threshold Planning Quantities:** CERCLA requires notification of the National Response Center (Telephone 1-800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs). SARA 302/304 requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and/or release of Reportable Quantities.

| Chemical Name | Reportable Quantity (RQ) | Threshold Planning Quantity (TPQ) |
|---|---|---|
| No ingredients listed in this section. | | |

**State & Provincial Right to Know & Selected Regulatory Lists**

The following ingredients appear on various state right to know lists and/or California's Proposition 65 List

| Chemical Name | State List |
|---|---|
| Benzyl Chloride (trace < 100 ppm) | AZ, CA, CAP65C, CT, IL, MA, MN, NJ, PA, RI |
| Ethanol | AZ, CA, CAP65R (ingestion only), CT, ID, MA, MN, NJ, PA, RI |

AZ – Arizona Ambient Air Quality Guidelines
CT – Connecticut Hazardous Air Pollutants
CA – California Director's List of Hazardous Substances
CA65C – California Prop 65 Carcinogen
CA65R – California Prop 65 Reproductive Toxin
ID – Idaho Non-carcinogen Toxic Air Pollutants
IL – Illinois Toxic Air Contaminant - Carcinogenic
MA – Massachusetts Right to Know List
MN – Minnesota Hazardous Substances List
NJ – New Jersey Right to Know List
PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substances List

**WHMIS Classification:** E, D2B. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## Section 16: Other Information

**Current Issue Date:** August, 2007
**Previous Issue Date:** None
**Changes from Previous Issue Date:** New MSDS

| Hazard Ratings | HMIS (II) | NFPA |
|---|---|---|
| Health | 3 | 3 |
| Flammability | 0 | 0 |
| Reactivity | 0 | 0 |
| PPE | X | |

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