

# Tower Guard 200

**MSDS# SCM-122**

March 2012

7 pages

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:**

Tower Guard 200

**Manufacturer:**

Specialty Chemical Manufacturing  
1633-B High Bridge Road, Quincy, FL 32351

**EMERGENCY Phone No.:** 1 800.255.3924 Chem-Tel (Chemical Emergencies)

**Phone (For Information):** 1+580.875.1716

**DATE REVISED:** 03/12/2012

**PREPARED BY:** A. Jernigan

## 2. HAZARDS IDENTIFICATION

**Emergency Overview:** Corrosive! Poison! May cause respiratory tract, eye and skin burns.

Harmful if absorbed through skin or if swallowed.

Contains Materials Which Causes Damage To The Following Organs:

Lungs, respiratory tract, skin, eye, lens or cornea.

Causes severe irritation and burns.

May be harmful if swallowed. Avoid breathing mist or spray.

Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed when not in use.

**Routes of entry:** Inhalation. Ingestion.

**Potential acute health effects**

**Eyes:** Corrosive to eyes.

**Skin:** Corrosive to the skin.

**Inhalation:** Corrosive to the respiratory system.

**Ingestion:** Toxic if swallowed. May cause burns to mouth, throat and stomach.

**Carcinogenic effects:** No known significant effects or critical hazards.

**Mutagenic effects:** No known significant effects or critical hazards.

**Teratogenicity/Reproductive toxicity:** No known significant effects or critical hazards.

**Medical conditions:**

Repeated skin exposure can produce local skin destruction or dermatitis.

Repeated or prolonged exposure to the substance can produce lung damage.

Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to the substance can produce damage to target organs.

**Signs and Symptoms of Exposure:**

**Inhalation:** Symptoms may vary from mild to severe irritation, sneezing, sore throat or runny nose. Severe pneumonitis may occur.

**Ingestion:** Symptoms may include burns of mouth, throat, and stomach, bleeding, vomiting, diarrhea, fall in blood pressure.

**Skin Contact:** Contact with skin can cause redness, irritation or severe burns and scarring with greater exposures.

# Tower Guard 200

**Eye Contact:** Contact with mist, spray or liquid causes redness, tearing, severe irritation or burning in eyes. Prolonged exposures can cause burns that may result in permanent impairment of vision, even blindness.

**Chronic Exposure:** Prolonged contact with dilute solutions or mists has a destructive effect upon tissue.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

| INGREDIENT          | CAS NO     | EINECS NO. | %     | Symbol | Risk Phrases            |
|---------------------|------------|------------|-------|--------|-------------------------|
| Water               | 7732-18-5  |            | 60-80 |        |                         |
| Potassium hydroxide | 1310-58-3  | 215-181-3  | 5-9   | C      | R22; R35                |
| Sodium silicate     | 1344-09-8  |            | 3-5   | C      | R22; R34                |
| COBRATEC(R) TT 100  | 29385-43-1 | 249-596-6  | <1    |        | R20/21/22;<br>R36/37/38 |

**Additional information:** For the wording of the listed Risk phrases refer to section 15.

## 4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:** DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. All the nearest poison control center or the National Poison Control Hotline at 1-800-222-1222 for advice.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician, immediately. Wash clothing before reuse.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Note to Physician:** Perform endoscopy in all cases of suspected potassium hydroxide ingestion. In cases of severe esophageal corrosion, the use of therapeutic doses of steroids should be considered. General supportive measures with continual monitoring of gas exchange, acid-base balance, electrolytes, and fluid intake are also required.

## 5. FIREFIGHTING MEASURES

Not considered to be a fire hazard.

**Explosion:** May cause fire and explosions when in contact with incompatible materials.

**Fire Extinguishing Media:** Use any means suitable for extinguishing surrounding fire.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## 6. ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Contain and recover liquid when possible. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, neutralized with dilute acid such as acetic acid, hydrochloric acid or sulfuric acid. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of 10,000 pounds. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. Remove contaminated clothing immediately. Remove unnecessary personnel from the area of the spill.

# Tower Guard 200

## 7. HANDLING AND STORAGE

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities. Store above 16C (60F) to prevent freezing. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Do not store with aluminum or magnesium. Do not mix with acids or organic materials. Keep this and all chemicals out of the reach of children. Wash thoroughly after handling.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**OSHA Permissible Exposure Limit (PEL):** 2ppm (Potassium hydroxide), 2ppm (Sodium hydroxide)

**ACGIH Threshold Limit Value (TLV):** 2ppm (Potassium hydroxide), 2ppm (Sodium hydroxide)

**Ventilation System:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):** If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities or a source of running water in the work area.

**Work Hygienic Practices:** Use proper industrial hygiene practices to minimize hazardous exposure. Wash hands after handling this material, and before eating or smoking.

## 9. PHYSICAL/CHEMICAL PROPERTIES

**Appearance:** Clear amber liquid

**Odor:** Mild triazole odor

**Odor threshold:** n.a.

**pH:** >12.5

**Melting point/freezing point:** <0°C (32°F)

**Initial boiling point and boiling range:** >100°C (212°F)

**Flash point:** Not applicable

**Evaporation rate:** n.a.

**Flammability limits %:** Not applicable

**Vapor pressure:** 17.5mm Hg@20°C n.a.

**Vapor density:** n.a.

**Relative density:** 1.08

**Solubility:** 100% water soluble

# Tower Guard 200

**Partition Coefficient: n-octanol/water:** Not applicable

**Auto-ignition temperature:** Not applicable

**Decomposition temperature:** n.a.

**Viscosity:** n.a.

**Explosive properties:** Not applicable

**Oxidizing properties:** Not applicable

n.a. = not available

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:** Reaction with non-ferrous metals releases flammable and explosive hydrogen gas.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Potassium hydroxide and sodium hydroxide, in contact with acids and organic halogen compounds, especially trichloroethylene, may cause violent reactions. Contact with metals such as aluminum, magnesium, tin, and zinc may cause formation of flammable hydrogen gas.

**Conditions to Avoid:** Heat, incompatibles.

## 11. TOXICOLOGICAL INFORMATION

Potassium hydroxide, CAS# 1310-58-3:

LD50: 365 mg/kg oral-rat

Inhalation LC 50: No Data

Dermal LD 50: Believed to be > 2 g/kg. (Rabbit)

**Inhalation** will cause severe irritation, possible burns with pulmonary edema, which may lead to pneumonitis. **Skin contact** with this material may cause severe irritation and corrosion of tissue.

**Eye contact** can cause severe irritation, corrosion with possible corneal damage and blindness.

**Ingestion** may cause irritation, corrosion/ulceration, nausea, and vomiting. In general, chronic effects are due to long-term irritation.

This material may cause dermatitis on the skin, or recurrent corneal ulceration and visual disturbances of vision. In rare cases, reports have noted long-term inhalation causes bronchial inflammatory reaction or obstructive airway dysfunction.

Investigated as a mutagen.

NTP Carcinogen: No

## 12. ECOLOGICAL INFORMATION

**Ingredient:**

Potassium hydroxide, CAS#1310-58-3

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

TLM96 – Gambusia Affinis (Mosquito-Fish) 80ppm

Lethal Dose (24 hr. exposure):

Trout – 50ppm

Bluegills – 56ppm

Lepomis Pallidus (minnows) – 28ppm

# Tower Guard 200

Sodium silicate, CAS# 1344-09-8

The following data is reported for sodium silicates on a 100% solids basis:

96-hour median tolerance for fish (*Gambusia affinis*) of 2320 ppm

96-hour median tolerance for water fleas (*Daphnia magna*) of 247 ppm

96-hour median tolerance for snail eggs (*Lymnea*) of 632 ppm

96-hour median tolerance for Amphipoda of 160 ppm.

## FISH TOXICITY:

**FATE AND TRANSPORT:** This material is not persistent in aquatic systems, but its high pH when undiluted or unneutralized is acutely harmful to aquatic life. It does not contribute to BOD. This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Where abnormally low natural silica concentrations exist (less than 0.1ppm), dissolved silica may be a limiting nutrient for diatoms and a few other aquatic algal species, however, the addition of excess dissolved silica over the limiting concentration will not stimulate the growth of diatom populations; their growth rate is independent of silica concentration once the limiting concentration is exceeded.

**BIODEGRADATION:** This material is inorganic and not subject to biodegradation.

**PERSISTENCE:** Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica.

**BIOCONCENTRATION:** Neither silica or sodium will appreciably bioconcentrate up the food chain.

**OTHER ECOLOGICAL INFORMATION:** This material has exhibited slight toxicity to terrestrial organisms.

## 13. DISPOSAL CONSIDERATIONS

Dispose of spill clean-up and other wastes in accordance with Federal, State, and local regulations. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and 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. Treat empty containers as hazardous. Dispose of container and unused contents in accordance with federal, state and local requirements. State and local disposal regulations may differ from federal disposal regulations

**RCRA Hazard Class (if discarded):** CORROSIVE D002.

## 14. TRANSPORT INFORMATION

**UN Number:** UN3266

**UN Proper Shipping Name:** Corrosive liquid, Basic, Inorganic, N.O.S. (Contains potassium hydroxide)

**Transport Hazard Class(es):** 8

**Packing group:** II

**Environmental Hazards:** Not Environmentally Hazardous Substance; not a Marine Pollutant

**ADR/RID ROAD//CDG Transport Information:** Transport category 3; Tunnel restriction code E

**SEA (IMDG) AIR (ICAO/IATA):** ERG Code 8L

**ADR/RID Class:** 8

**ADR/RID Packing Group:** II

**IMDG Hazard Class:** 8

**IMDG Packing Group:** II

**IMDG Code Segregation Group:** n.a.

# Tower Guard 200

EmS: F-A S-B

ADNR Item n.a.

IATA Hazard Class 8

IATA Packing Group II

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

## 15. REGULATORY INFORMATION

### Risk phrases:

**R20/21/22:** Harmful by inhalation, in contact with skin and if swallowed .

**R34:** Causes burns.

**R36/37/38:** Irritating to eyes, respiratory system and skin .

### Safety phrases

**S1/2:** Keep locked up. Keep out of reach of children

**S24/25:** Avoid contact with skin and eyes

**S26:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**S45:** In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**S36/37/39:** Wear suitable protective clothing, gloves and eye/face protection.

### Federal, State & International Regulations

#### U.S. REGULATIONS:

**U.S. INVENTORY (TSCA):** All components are listed on or are exempt from the inventory.

**TSCA 12(b) EXPORT NOTIFICATION:** Not listed.

**CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES:** 1000 LBS RQ (potassium hydroxide);

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES:** Not regulated.

**SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES):**

**ACUTE:** Yes; **CHRONIC:** No; **FIRE:** No; **REACTIVE:** No; **SUDDEN RELEASE of Pressure:** No

**SARA TITLE III SECTION 313:** Not regulated.

**OSHA PROCESS SAFETY:** Not regulated.

#### STATE REGULATIONS:

**California Proposition 65:** Not regulated.

#### NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW:

**Reporting Requirement:** Potassium hydroxide (1310-58-3) 5-10%

**Right To Know Hazardous Substance List:** Potassium hydroxide (1310-58-3) 5-10% **Special**

**Health Hazard Substance List:** Potassium hydroxide (1310-58-3) 5-10% **PENNSYLVANIA RIGHT TO KNOW:**

**Reporting Requirement:** Potassium hydroxide (1310-58-3) 5-10%

**Hazardous Substance List:** Potassium hydroxide (1310-58-3) 5-10% **ENVIRONMENTAL**

**HAZARDOUS SUBSTANCE LIST:** Potassium hydroxide (1310-58-3) 5-10%

**SPECIAL HAZARDOUS SUBSTANCE LIST:** Not regulated.

#### CANADIAN REGULATIONS:

**WHMIS CLASSIFICATION:** E.

**CANADA INVENTORY (DSL/NDL):** All components of this product are listed on the DSL.

**Australian Hazchem Code:** 2R

**Poison Schedule:** Not scheduled

**WHMIS:** This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.



# Tower Guard 200

## 16. OTHER INFORMATION

**NFPA/HMIS Ratings:** Health: **3** Flammability: **0** Reactivity: **1**

### **Label Hazard Warning:**

Danger: Contains and potassium hydroxide.

Corrosive to eyes, skin and respiratory organs.

### **Label Precautions:**

Wear eye and skin protection when mixing and using this product.

Do not get in eyes, on skin or clothing

Wash thoroughly with soap and water after handling.

Consult the Safety Data Sheet for this product for additional storage handling and use and disposal information.

### **Label First Aid**

For eye contact, flush eyes with water for 15 minutes. If irritation occurs, contact physician immediately.

For Skin contact, wash with soap and water until the area no longer feels "slick". If irritation persists, get medical attention.

Do not take internally. In case of accidental ingestion, do not induce vomiting; give 2-3 glasses of water and call the nearest poison control center.

If inhaled, remove the victim to fresh air. If breathing has not returned to normal within 15 minutes, get medical attention.

This information is, to the best of our knowledge and belief, accurate and reliable as of the date completed. However no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the completeness and suitability of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against patent infringement.