MATERIAL SAFETY DATA SHEET

MANUFACTURER: Pioneer Research 3110 N. 19TH Avenue, Suite 200 Phoenix, Arizona 85015

GENERAL INFORMATION TELEPHONE: 602-230-0012
EMERGENCY TELEPHONE: 800-255-3924

SECTION I. IDENTIFICATION OF PRODUCT

PRODUCT NAME: ACTIVATED NEEDLES
PRODUCT CODE: 1500

HFPA HAZARD IDENTIFICATION SYSTEM:
0-Insignificant 1-Slight 2-Moderate 3-High 4-Extreme
HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 1

SECTION II. HAZARDOUS INGREDIENTS

Hazardous Components (Specific Identity; Common Name (s))
CAS# OSHA PEL ACHIH TLV
Sodium Hydroxide (Caustic Soda) 1310-73-2 Ceiling Ceiling

SECTION III. PHYSICAL DATA

Boiling Point: 2534 °F 1390°C Vapor Pressure (mm Hg): Non - Volatile
Vapor Density (AIR = 1): Non - Volatile Solubility in Water: 347g/100g water @ 100°C
Specific Gravity (H2O = 1): 2.130 Melting Point: N/A
Evaporation Rate: Non - Volatile Appearance/Odor: White colored solid, no odor
PH: Strongly basic

SECTION IV. FIRE AND EXPLOSIVE DATA

Flash Point (Method Used): None
Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: N/A
Special Fire Fighting Procedures: None
Unusual Fire and explosion Hazards: Contact with some metals such as magnesium, aluminum and galvanized zinc) can rapidly generate hydrogen which is explosive. Emits toxic fumes under fire conditions. Fire fighter must wear N/OSH approved pressure demand, self-contained breathing apparatus and full protective clothing.

SECTION V. REACTIVITY DATA

Stability: Stable conditions / materials to avoid
Incompatibility (Material to avoid): Organic materials and concentrated acids may cause violent reactions. Contact with magnesiu, aluminum, galvanized zinc, tin, chromium, brass and bronze generates explosive hydrogen. Reactions with various food sugars may form carbon monoxide. Reacts exothermically on contact with water.

Hazardous Decomposition: Carbon Monoxide
Hazardous Polymerization: Will Not Occur

SECTION VI. HEALTH HAZARD DATA

Route of Entry: Inhalation: Yes Skin: Yes Ingestion: Yes
Health Hazards (Acute and Chronic): Effect of overexposure: Eyes and Skin: Severe burns to eyes and skin.
Permanent damage and/or loss of vision. Corrosive action causes burns and frequently, deep ulceration with subsequent scarring.
Prolonged contact destroys tissue. Ingestion: Damage to the mucous membranes or other tissues with which contact is made, and may be fatal. Inhalation: Inhalation of dusts or mists can cause damage to upper respiratory tract and to the lung tissue. Effects can range from mild irritation of mucous membranes, severe pneumonitis and destruction of lung tissue. Chronic effects have not been determined.
Packing California 302: CERCLA Acute USA Respiratory Other Handling/Storage:

- **Eyes:** Immediately flush eyes and skin with plenty of water, (soap and water for skin), for at least 15 minutes. Hold eye lids open during this flushing with water. Call a physician immediately. Rinse until no longer slippery. Remove contaminated discard.
- **Inhalation:** Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical help.
- **Ingestion:** Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. If conscious, give sips of water or acidic beverages (tomato or orange juice, carbonated soft drinks). Get medical attention right away. Poison Control Center, Emergency Room. As further treatment will be necessary.

### SECTION VII. PRECAUTIONS FOR SAFE HANDLING AND USE

**Spill Response:** Only trained personnel with NIOSH/MSHA approved. dust/mist respirators should be permitted in area. For dry material use appropriate methods, shovels, brooms, etc. Use protection, if needed. Place in steel container. If wet, contain spill. Dilute with large amounts of water then neutralize with dilute acid to pH of 6 to 9. This may be disposed of in waste water treatment facilities which allow the discharge of neutral salt solutions.

**Waste Disposal:** Dispose in an approved hazardous waste management facility or by neutralizing and disposing of according to Local, State and Federal regulations.

**Handling/Storage:** Keep container closed when not in use. Store in cool, dry place. When making solutions, add slowly to cold water while stirring. Do not add to warm or hot water - a violent eruption can result.

**Other Precautions:** KEEP OUT OF THE REACH OF CHILDREN. Do not eat, drink or smoke in work area.

### SECTION VIII. CONTROL MEASURES

**Respiratory Protection:** Use a NIOSH approved dust/mist respirator for all routine activities when exposure to dust/mist exceed the permissible exposure limits. Exposure limits: 8 hr time weighted average (TWA); 15 minute short term exposure limit (STEL); OSHA 2mg/cu.m ceiling.

**Ventilation:** Use local exhaust sufficient to maintain dust levels below permissible exposure limits.

**Other Protective Equipment:** Eye wash station should be accessible. Rubber aprons, rubber boots, face shield.

**Work Hygienic Practices:** Wash hands after use. Never touch eyes, face or skin with contaminated gear.

### SECTION IX. REGULATORY INFORMATION

**USA TSCA:** All components of this product are listed on the TSCA inventory.

**CANADA DOMESTIC SUBSTANCES LIST (DSL):** This product and/or all of its components are listed on the Canadian DSL.

**SARA TITLE III:**

- **SARA (311, 312) Hazard Class:**
- **Acute Health Hazard. Reactive Hazard**
- **SARA (313) Chemicals:** Not listed
- **SARA Extremely Hazardous Substance:** Not listed

**CERCLA Hazardous Substance:**

The following materials are listed as CERCLA Hazardous Substances in table 302.4 of 40 CFR Part 302: Sodium Hydroxide (1310-73-2) RQ = 1000lbs./454kg.

**CALIFORNIA PROPOSITION 65:** Warning: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

**CANADA REGULATIONS (WHMIS):** Class E - Corrosive Material.

### SECTION X. TRANSPORT INFORMATION

**Proper Shipping Name:** Sodium Hydroxide, Solid

**Hazard Class:** 8(Corrosive)

**UN Number:** UN1823

**Packing Group:** II

**USA-RQ, Hazardous Substance and Quantity:** 1000 lbs./454 kg Sodium Hydroxide (1310-73-2)

**Marine Pollutant:** None

**Additional Information** USA Shipments Only - Hazardous Substances are regulated in the USA when shipped above their Reportable Quantity (RQ).