

# SAFETY DATA SHEET

## 4-S COMBI-CLEAN

### SECTION 1: PRODUCT & COMPANY IDENTIFICATION

DATE: 06/10/2014 / Supersedes Revision: n/a

**Manufacturer:**

PDQ Manufacturing, Inc.  
201 Victory Circle  
Ellijay, GA USA 30540  
Phone: (706) 636-1848  
Website: www.pdqonline.com

**Distributor:**

4 STATE MAINTENANCE SUPPLY  
P.O. BOX 591  
COFFEYVILLE, KS 67337  
620/251-7033

**EMERGENCY CONTACT:** Chemtrec, Reference CCN203605  
Phone: (800) 424-9300 (collect calls accepted) / International: (703) 527-3887

**Product Name:** 4-S COMBI-CLEAN  
**ID Code:** 4699  
**Product Category:** Alkaline Detergent

### SECTION 2: HAZARD(S) IDENTIFICATION

**Acute Toxicity:** Oral, Category 4  
**Skin Corrosion/Irritation, Category 1A**



**GHS Signal Word:** DANGER

**GHS Hazard Phrases:**

H302 - Harmful if swallowed.  
H314 - Causes severe skin burns and eye damage.

**GHS Precaution Phrases:**

P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

**GHS Response Phrases:**

P301+312 - IF SWALLOWED: Seek medical attention if you feel unwell.  
P330 - Rinse mouth.  
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.  
P363 - Wash contaminated clothing before reuse.  
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P310 - Immediately call a Poison Control Center or doctor.

**GHS Storage and Disposal Phrases:**

P501 - Unused product is not a RCRA Hazardous waste. However, contaminated product and wastes may be RCRA hazardous. Users are advised to determine the appropriate disposal method based on local, state and federal regulations and comply with those regulations.  
P405 - Store locked up.

**Hazard Rating System:**

**HMIS**

**Health: 2**  
**Flammability: 0**  
**Physical: 2**  
**PPE:**

**NFPA**

**Health: 2**  
**Flammability: 0**  
**Instability: 0**  
**Special Hazard: COR**

**Potential Health Effects (Acute and Chronic):** Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause dermatitis. Effects may be delayed.

**Inhalation:** Harmful if inhaled. Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause systemic effects.

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**Skin Contact:** May cause deep, penetrating ulcers of the skin. Causes severe burns with delayed tissue destruction. Causes redness and pain. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color. Causes skin burns.

**Eye Contact:** Causes severe eye burns. May cause irreversible eye injury. Contact may cause ulceration of the conjunctiva and cornea. Eye damage may be delayed. Causes redness and pain. May cause chemical conjunctivitis and corneal damage.

**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns. May cause circulatory system failure. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause systemic effects. Causes severe pain, nausea, vomiting, diarrhea, and shock. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
1310-58-3	Potassium hydroxide {Caustic potash}	<10.0 %
1310-73-2	Sodium hydroxide {Caustic soda; Lye solution}	<10.0 %

### SECTION 4: FIRST-AID MEASURES

#### Emergency and First Aid Procedures:

**In Case of Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask. If inhaled, remove to fresh air. Get medical aid.

**In Case of Skin Contact:** Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Discard contaminated clothing in a manner which limits further exposure. Destroy contaminated shoes. If water-reactive products are embedded in the skin, no water should be applied. The embedded products should be covered with a light oil.

**In Case of Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

**In Case of Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid immediately. If victim is fully conscious, give a cupful of water.

**Note to Physician:** None known.

### SECTION 5: FIRE-FIGHTING MEASURES

**Flash Point:** NP Method Used: Estimate

**Explosive Limits:** LEL: UEL:

**Autoignition Pt:** NP

**Suitable Extinguishing Media:** Use dry sand or earth to smother fire. Use extinguishing media appropriate to surrounding fire conditions. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material will not burn. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water reactive. Material will react with water and may release a flammable and/or toxic gas. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Use water with caution and in flooding amounts. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials. May ignite or explode on contact with steam or moist air. Use water spray to keep fire-exposed containers cool. Contact with metals may evolve flammable hydrogen gas.

**Flammable Properties and Hazards:**

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case Material Is Released Or Spilled:** Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Avoid runoff into storm sewers and ditches which lead to waterways.

### SECTION 7: HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Wash thoroughly after handling. Do not allow water to get into the container because of violent reaction. Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Do not allow contact with water. Discard contaminated shoes. Keep from contact with moist air and steam. Avoid ingestion and inhalation. Use only with adequate ventilation.

**Precautions To Be Taken in Storing:** Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Keep away from metals. Keep away from acids.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
1310-58-3	Potassium hydroxide {Caustic potash}		CEIL: 2 mg/m3	
1310-73-2	Sodium hydroxide {Caustic soda; Lye solution}	PEL: 2 mg/m3	CEIL: 2 mg/m3	

**Respiratory Equipment (Specify Type):** Respirator protection is not normally required. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Eye Protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Wear chemical splash goggles.

**Protective Gloves:** Wear appropriate protective gloves to prevent skin exposure.

**Other Protective Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Engineering Controls (Ventilation etc.):** There are no special ventilation requirements. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical States:** [ ] Gas [ X ] Liquid [ ] Solid

**Appearance and Odor:** Clear, brown slightly viscous liquid  
Mild odor.

**Freezing Point:** ~ 40.00 F - 0.00 F

**Boiling Point:** 0.00 C - 0.00 C

**Autoignition Pt:** NP

**Flash Pt:** NP Method Used: Estimate

**Explosive Limits:** LEL: UEL:

**Specific Gravity (Water = 1):** ~ 1.300

**Vapor Pressure (vs. Air or mm Hg):** ~ 12 MM\_HG

**Vapor Density (vs. Air = 1):**

**Evaporation Rate:**

**Solubility in Water:**

**Viscosity:** thin

**pH:** >12.5

**Percent Volatile:**

### SECTION 10: STABILITY AND REACTIVITY

**Stability:** Unstable [ ] Stable [ X ]

**Conditions To Avoid - Instability:** No specific conditions to avoid noted.

**Incompatibility – Materials To Avoid:** Acids, Sulfur oxides. Metals. Aluminum, Zinc, nitromethane, leather, organic halogens.

**Hazardous Decomposition Or Byproducts:** Oxides of potassium, hydrogen gas. Toxic fumes of sodium oxide.

**Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid -Hazardous Reactions:** Product will not undergo polymerization

### SECTION 11: TOXICOLOGICAL INFORMATION

**Toxicological Information:** Epidemiology: No data available.

Reproductive Effects: Mutagenicity: Neurotoxicity: No information found.

Teratogenicity: No information available. See actual entry in RTECS for complete information.

**Carcinogenicity/Other Information:** CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 1310-58-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 1310-73-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
1310-58-3	Potassium hydroxide {Caustic potash}	n.a.	n.a.	n.a.	n.a.
1310-73-2	Sodium hydroxide {Caustic soda; Lye solution}	n.a.	n.a.	n.a.	n.a.

### SECTION 12: ECOLOGICAL INFORMATION

**General Ecological Information:** Environmental: No information found. Physical: No information found.

Other: No information available.

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### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

### SECTION 14: TRANSPORTATION INFORMATION (DOT/UN CLASSIFICATION)

#### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Corrosive liquid, basic, inorganic, n.o.s. (contains sodium hydroxide and potassium hydroxide)

**DOT Hazard Class:** 8 CORROSIVE

**UN/NA Number:** UN3266

**Packing Group:** II

**LAND TRANSPORT (Canadian TDG):**

**TDG Shipping Name:** CORROISVE



### SECTION 15: REGULATORY INFORMATION

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1310-58-3	Potassium hydroxide {Caustic potash}	No	Yes 1000 LB	No
1310-73-2	Sodium hydroxide {Caustic soda; Lye solution}	No	Yes 1000 LB	No

CAS #	Hazardous Components (Chemical Name)
1310-58-3	Potassium hydroxide {Caustic potash}
1310-73-2	Sodium hydroxide {Caustic soda; Lye solution}

#### Other US EPA or State Lists

CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No  
CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

### SECTION 16: OTHER INFORMATION

**Revision Date:**06/10/2014

**Preparer Name:** Regulatory Affairs

#### Additional Information About This Product:

**Company Policy or Disclaimer:** The information contained in this Safety Data Sheet is provided pursuant to current OSHA regulations to convey information concerning the hazardous nature of the named product. The information supplied was compiled from the most reliable sources available at the time of preparation and in light of the most reasonable foreseeable exposure situations expected from the intended use of this product. The material(s) may present greater or lesser hazard exposure under other circumstances that are beyond the control of the manufacturer. Therefore it is imperative that all directions and warnings on the product label be read and closely followed.