

MATERIAL SAFETY DATA SHEET from STEARNS PACKAGING CORPORATION

SECTION I—PRODUCT/MANUFACTURER'S IDENTITY

IDENTITY (As Used On Label and List):

Flow Clean

SYNONYMS: ST-2000

FORMULA ID NUMBER: MM-10

EPA REG #: None

USDA ACCEPTANCE DATE/CATEGORY CODE: None

HAZARD RATING		
0	Flammability	4 = Extreme
2	Health	3 = High
0	Reactivity	2 = Moderate
None	Special Hazard	1 = Slight
		0 = Insignificant

For Transportation Emergency Involving Hazardous Materials Contact: **CHEM-TEL 1 (800) 255-3924**

COMPANY: STEARNS PACKAGING CORPORATION
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Shipping Information:

DOT SHIPPING NAME: Compounds, cleaning, liquid, (containing potassium hydroxide solution), 8, NA 1760, PG II, Item 48580, Sub. 3, Class 55
DOT SHIPPING NUMBER: NA 1760
HAZARD LABEL: Corrosive
HAZARD CLASS: 8, Corrosive

SECTION II—HAZARDOUS INGREDIENTS OR IDENTITY INFORMATION

HAZARDOUS CHEMICAL IDENTITY &

CAS#	HAZARD	OSHA PEL	ACGIH TLV	OTHER LIMITS	% (OPTIONAL)
▶ Sodium silicate 1344-09-8	Corrosive				
▶ Potassium hydroxide 1310-58-3	Corrosive	2	2	2	

SARA SECTION 313 TITLE III NOTIFICATION REQUIRED: No; CHEMICAL IN PRODUCT: None; CAS#: N/A; WT. % OF CHEM: N/A

SECTION III—PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT:	193°F/89.4°C	VAPOR PRESSURE (mm Hg):	Not Determined
SPECIFIC GRAVITY (WATER=1):	1.368	VAPOR DENSITY (AIR=1):	Not Determined
MELTING POINT:	Not Applicable	EVAPORATION RATE:	< 1 (Butyl Acetate = 1)
SOLUBILITY IN WATER:	Complete	pH (CONCENTRATE):	13.5 - 14.0
APPEARANCE AND ODOR:	Clear, watery white liquid No odor	pH (1% SOLUTION):	Not Determined

SECTION IV—FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED):	Non-combustible, >200°F
EXTINGUISHING MEDIA:	CO ₂ , dry chemical, alcohol foam, or as appropriate for surrounding fires.
FLAMMABLE LIMITS:	LEL: Not Applicable UEL: Not Applicable
SPECIAL FIRE FIGHTING PROCEDURES:	Use full protective clothing and self-contained breathing apparatus. Water and regular foam may cause excessive frothing.
FIRE & EXPLOSION HAZARDS:	Flammable ammonia gas will be liberated at all temperatures which can be explosive under some conditions. The addition of this product to concentrated mineral acids will cause instant boiling and possible explosion.

SECTION V—REACTIVITY DATA

STABILITY:	Stable
INCOMPATIBILITY (MATERIALS TO AVOID):	Acids, oxidizing materials, copper, aluminum, zinc, galvanized metals, gold, silver, and alloys of these metals.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS:	Possible nitrogen oxides. Possible ammonia gas.
CONDITIONS TO AVOID:	Freezing and extremes of heat. Avoid sparks and open flames.
HAZARDOUS POLYMERIZATION:	Will not occur

SECTION VI—HEALTH HAZARD DATA/FIRST AID PROCEDURES

HEALTH HAZARDS (ACUTE AND CHRONIC): **Inhalation:** Vapors and mists are extremely corrosive to the nose, throat and mucous membranes. Bronchitis, pulmonary edema, and chemical pneumonitis may occur. Irritation, coughing, chest pain, and difficulty in breathing may occur with brief exposure while prolonged exposure may result in more severe irritation and tissue damage. Breathing high concentrations may result in death. **Eye Contact:** Vapors, mists, and liquid are extremely corrosive to the eyes. Brief contact of the vapors will be severely irritating. Brief contact of the liquid or mists will severely damage the eyes, and prolonged contact may cause permanent eye injury which may be followed by blindness. **Skin Contact:** Vapors, mists, and liquid are extremely corrosive to the skin. Vapors will severely irritate the skin, and liquid and mists will severely burn the skin. Prolonged liquid contact will burn or destroy surrounding tissue and death may accompany burns which extend over large portions of the body. **Ingestion:** Vapors, mists, and liquid are extremely corrosive to the mouth and throat. Swallowing the liquid burns the tissues, causes severe abdominal pain, nausea, vomiting and collapse. Swallowing large quantities can cause death.

CARCINOGENICITY: NTP: No IARC Monographs: No OSHA Regulated: No

SIGNS AND SYMPTOMS OF OVEREXPOSURE: **Skin:** Irritation or corrosion may occur to exposed tissues, especially eyes, skin, throat, nasal cavities and other mucous membranes from contact with the product, its use solutions, or mists and vapors generated by the product. Brief contact with skin may cause irritation or rash. Prolonged contact may cause skin burns and ulceration. **Eyes:** Eye contact may cause blindness. Liquid may irritate or corrode eyes, causing discomfort, tearing or blurring of vision. Prolonged contact may lead to eye corrosion with corneal or conjunctival ulceration. **Ingestion:** Ingestion may be harmful or fatal. Ingestion will cause burning of tissues, abdominal pain, nausea, vomiting and collapse. Swallowing large quantities may cause death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing eye or pulmonary disease may be susceptible.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: If contact with eyes occurs, flush with plenty of cool water for 15 minutes. Consult a physician.
Skin: May be irritating to skin. If contact occurs, flush with water and wear gloves in the future to minimize exposure. Wash hands thoroughly after handling. Discontinue use if irritation persists and consult a physician.
Inhalation: Remove from exposure. Obtain medical attention immediately.
Ingestion: May be harmful if swallowed. If ingested, drink large amounts of water or milk. **DO NOT** induce vomiting. Get medical attention immediately. Delayed gastric lavage should be done under esophaloscopic visualization.
Note to Physician: Duration of irrigation and treatment is at the discretion of medical personnel. No specific antidote. Use supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

SECTION VII—PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear alkali-resistant slicker suit and complete protective equipment including rubber gloves and rubber boots and chemical goggles and faceshield. For small spills or drips, mop or wipe up and dispose of in a DOT-approved waste container. For large spills, contain by diking with soil or other absorbent material and carefully neutralize with dilute hydrochloric acid. Keep non-neutralized material out of sewers, storm drains, surface waters, and soil. Comply with all applicable government regulations on spill reporting, handling, and disposal of waste.

WASTE DISPOSAL METHOD: Waste disposal must be done in accordance with all local, city or municipality, county, state, and federal regulations. Consult your state department of natural resources or the EPA for specific questions not answerable through other sources. Wastewater should never enter a fresh water body without treatment

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store at room temperature. Keep container tightly closed when not in use. Vent container frequently, and more often in warm weather, to relieve pressure. Do not use pressure to empty container. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not cut, grind, weld or drill near container. Do not mix with other chemicals or cleaning agents.

OTHER PRECAUTIONS: Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Always keep product out of the reach of children.

SECTION VIII—OTHER REGULATORY INFORMATION

Massachusetts and Pennsylvania Right-to-Know laws and extraordinarily hazardous substances: Potassium hydroxide 1310-58-3

SECTION IX—CONTROL MEASURES

RESPIRATORY PROTECTION: In general, respirators are not needed if the product is used in a well-ventilated area. However, use of a NIOSH/MSHA respirator may be a good common sense approach to working with products where dusts and mists are known to cause irritation of the eyes and/or mucous membranes.

VENTILATION: Local Exhaust: Recommended to control below TLV of 2 ppm for potassium hydroxide.
Mechanical (General): Recommended to control below TLV of 2 ppm for potassium hydroxide.

SKIN PROTECTION: Neoprene, rubber, or other chemical resistant gloves. Wear protective clothing to prevent repeated or prolonged contact.

EYE PROTECTION: Splash goggles, or safety glasses if splashing is not a concern.

WORK/HYGIENIC PRACTICES: As good hygiene dictates.

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