MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT/MANUFACTURER'S IDENTITY

Product Name: Mark E II One-Step Disinfectant, Germicidal Detergent and Deodorant
Synonyms: ST-756, ST-757, ST-758, ST-760, ST-2145
Company: Stearns Packaging Corporation
4200 Sycamore Avenue (53714)
PO Box 3216
Madison, WI 53704-0216
Phone: 800-655-5008
Fax: 608-246-5149
Website: www.stearnspkg.com

Formula ID Number: SL45
MSDS File Name: MARK E II ONE-STEP
EPA Reg #: 10324-108-3640
DOT Hazard Class: None
DOT Shipping Name: Disinfectant, NOI, liquid. Item 57100, Sub 3. Class 85
NSF Certified: None
Green Seal Certified: None

Concentrate		In Dilution
0	Flammability	0
2	Health	1
0	Reactivity	0
None	Special Hazard	None

HAZARD RATING
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

Emergency Contact: CHEM-TEL, 800-255-3924

Abbreviation Key: N.A.=Not Applicable, N.D.=Not Determined

SECTION 2 – HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CHEMICAL IDENTITY	CAS NO.	HAZARD	PEL(ppm)	TLV(ppm)	%(Optional)	Other Limits
Alkyl dimethyl benzyl ammonium chloride (C12-C16)	68424-85-1	Irritant		N.D.	7 - 9	
Octyl decyl dimethyl ammonium chloride	32426-11-2	Irritant		N.D.	6 - 8	
Dioctyl dimethyl ammonium chloride	5538-94-3	Irritant		N.D.	3 - 5	
Didecyl dimethyl ammonium chloride	7173-51-5			N.D.	3 - 5	
Ethanol	64-17-5		1000 ppm	1000 ppm	2 - 4	

SARA Section 313 Title III Notification Required: No

SECTION 3 – PHYSICAL DATA

Appearance and Odor: Clear light red liquid, fresh scent
Solubility in water: Complete
Boiling Point: N.D.
Melting Point: N.A.
Vapor Pressure (mm Hg): N.D.
Vapor Density (Air=1): N.D.
Evaporation Rate (Butyl Acetate=1): N.D.
pH (Concentrate): 6 - 9
pH (1:256 Dilution): 7.0 ± 0.5
Specific Gravity (Water=1): 0.9992 @ 23°C

SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: Over 210° F (over 99° C)
Flammable Limits LEL: N.D.
UEL: N.D.
Extinguishing Media: CO_2, water fog, dry chemical, foam
Special Fire Fighting Procedures: Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray. Solid water streams may spread burning liquid.
Unusual Fire & Explosion Hazards: Water spray may reduce vapor but will increase foaming. Water may not prevent ignition in closed spaces.

SECTION 5 – REACTIVITY DATA

Chemical Stability: Stable: X Unstable: _____
Incompatibility (Materials to Avoid): Strong oxidizing agents (may result in fire), reducing agents
Hazardous Polymerization: May Occur _____ Will Not Occur X
Conditions to Avoid: Keep away from heat and strong oxidizing agents.
Hazardous Decomposition or By-Products: Carbon monoxide, carbon dioxide, and toxic hydrogen chloride vapors.

SECTION 6 – HEALTH HAZARD DATA/FIRST AID PROCEDURES

Health Hazards (Acute and Chronic): Corrosive to the eyes, skin, gastrointestinal tract, and respiratory system.
Signs and Symptoms of Exposure: Eyes: Causes burns and may result in permanent injury to eyes including blindness. Skin: Causes 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 skin. 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, nausea, vomiting, and diarrhea and possibly death. Harmful if swallowed.
Medical Conditions Aggravated by Exposure: No data available
Carcinogenicity: IARC Monographs? Yes_____ No X
NTP? Yes_____ No X OSHA Regulated? Yes_____ No X

Emergency and First Aid Procedures:
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: 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. Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 7 – PREVENTATIVE AND CONTROL MEASURES

Ventilation: Mechanical (explosion proof): Provide adequate local exhaust ventilation (explosion proof) to maintain worker exposure below exposure limits.
Skin Protection: Use impervious gloves (rubber or neoprene). Wear suitable protective clothing.
Eye Protection: Wear chemical goggles. Use a face shield if splashing is possible.
Respiratory Protection: If exposure limits are exceeded or if irritation is experienced, an organic-vapor removing cartridge with a pre-filter respiratory (MSHA/NIOSH approved) protection 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.
Other Precautions: Eye wash fountain and emergency showers are recommended. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.
Steps to be Taken if Material is Spilled or Released: Stay upwind. Keep out of low areas where vapors may accumulate. Isolate spill or leak area immediately. Keep unauthorized personnel away. 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. A vapor suppressing foam may be used to reduce vapors. 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. Use clean non-sparking tools to collect absorbed material. Large spills: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor but will increase foaming. Water may not prevent ignition in closed spaces.
Waste Disposal: Although not considered a hazardous waste, the discarding or disposal of this material should 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. Consult your state DNR or the EPA for specific questions. Wastewater should never enter a fresh water body without treatment. Unused product or its solutions may be poured down the drain.
Handling and Storage: 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. Avoid contact with skin and eyes.

SECTION 8 – OTHER REGULATORY INFORMATION

Toxicity:
Acute Oral LD_{50} ï male and female rats combined 809 mg/kg body weight
Acute Dermal ï Greater than 2g/kg body weight
Primary Skin ï Corrosive ï Rabbits Tox. Category I for dermal effect
Primary Eye ï Corrosive ï Rabbits Tox. Category I
Very toxic to aquatic organisms. Information available upon request.
Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.

State Right-to-Know: Alkyl (C12-C16) dimethyl benzyl ammonium chloride, octyl decyl dimethyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride, ethanol.
California Proposition 65: Benzyl chloride (trace impurity) <10ppm
SARA 311/312 (40 CFR 370)Hazards Categories: Fire, Acute(Immediate)
EPA CERCLA RQ: No ingredients listed in this section.
Personal protection: safety glasses, gloves
All ingredients are listed on the TSCA inventory.

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