Mark E II

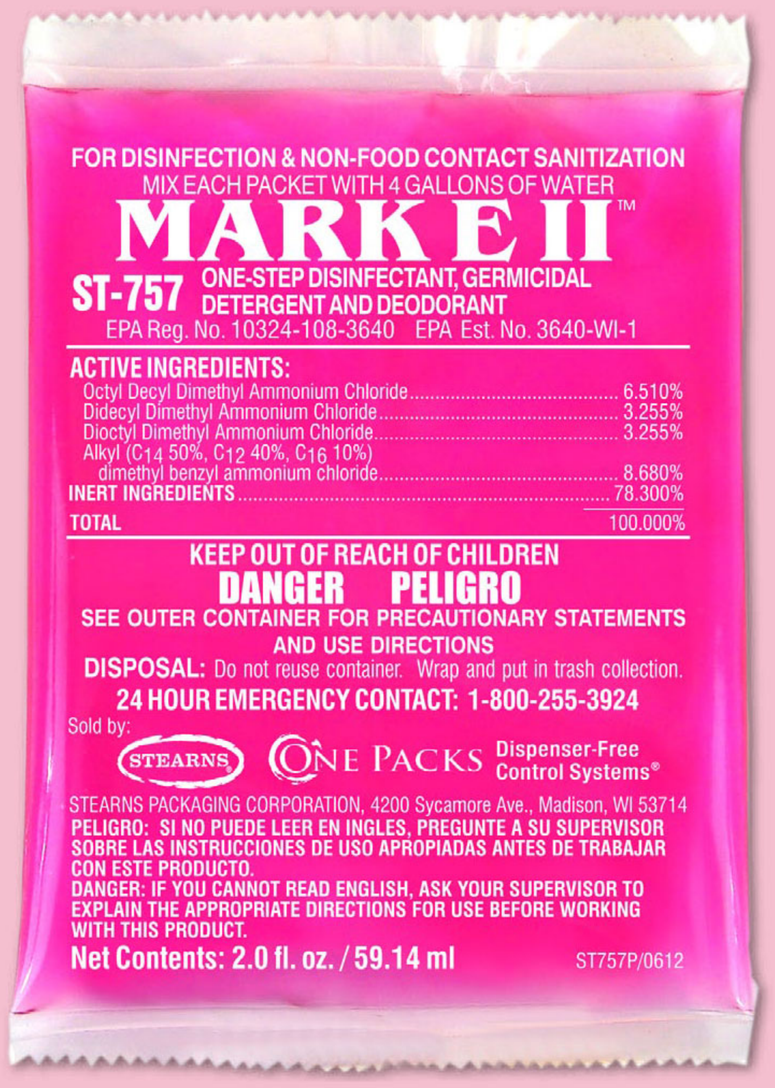
ONE-STEP DISINFECTANT, GERMICIDAL DETERGENT AND DEODORANT

Disinfectant, Cleaner, Mildewstat, Sanitizer (nonfood contact surfaces)
Mildewcide, Deodorizer for Hospitals, Institutional, Industrial and School Use.

Mark E II is a concentrated, multi-purpose, hospital-grade, germicidal detergent and deodorant effective in hard waters up to 400 ppm (calculated as CaCO3) plus 5% serum contamination. This liquid concentrate has been formulated as a one-step cleaner for use in hospitals, nursing homes, schools, colleges, veterinary clinics, animal life science laboratories, food processing plants, airports, hotels and motels.

Mark E II is mildewcidal and virucidal against a broad spectrum of pathogens including repeatedly documented effectiveness against the HIV-1 (AIDS) Virus, Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Influenza A/Strain PR Virus, (kills pandemic 2009 H1N1 Influenza A Virus, formerly called Swine Flu), and Herpes Simplex Virus, Types I and II. Also effective at controlling Staphylococcus aureus, including the Methicillin Resistant (MRSA) and Vancomycin Sensitive strains, and Community Acquired Staphylococcus aureus Methicillin Resistant (CAMRSA). Plus, *Mark E II* controls the Vancomycin Resistant (VRE) strain of Enterococcus faecalis.

Mark E II comes as a concentrated 100% phosphate-free, germicidal detergent that is completely soluble in hard and soft water. *Mark E II* is EPA registered as a hospital-grade detergent/disinfectant and can be used on all washable, hard, non-porous surfaces including floors, walls, metal surfaces, stainless-steel, porcelain and plastic surfaces. *Mark E II* is a mildewstatic disinfectant for destroying and inhibiting mildew growth.



Mark E II
ST-757, 2 fl. oz. pack

ST-No.	Case Size	Usage	Case Weight	Dilution Rate
ST-756	144 x 1 fl. oz. packs	mop buckets	12.5 pounds	2 gallons
ST-757	72 x 2 fl. oz. packs	mop buckets	11 pounds	4 gallons
ST-758	36 x 4 fl. oz. packs	autoscrubber or stock solution bottle (ST-9955)*	11 pounds	8 gallons
ST-760	54 x 2.5 fl. oz. packs	5 gallon Quik Tank	11 pounds	5 gallons
ST-2145	4 x 1 gallon case	bulk/commercial	36 pounds	varies
ST-9935	12 x 32 fl. oz. empty silk-screened bottles	5 gallon Quik Tank		
ST-9955	1 x 64 oz. empty stock solution bottle*	use with 4 oz. pack (ST-758) & 16 oz. spray bottle (ST-9957)		
ST-9957	12 x 16 oz. empty spray bottle	use with 4 oz. pack (ST-758) & stock solution bottle (ST-9955)*		

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

PREPARATION OF USE SOLUTION:

For water hardness up to 400 ppm add ½ ounce per gallon of water (1:256) (850 ppm active quat) (or equivalent use dilution) to disinfect hard, non-porous surfaces. Treated surfaces must remain wet for 10 minutes.

Apply use solution to hard, inanimate, non-porous surfaces, thoroughly wetting surfaces with a cloth, mop, sponge or sprayer. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

Before using this product, food products and packaging materials must be removed from the room or carefully protected. After use, all surfaces in the area must be thoroughly rinsed with potable water.

Chemical Characteristics

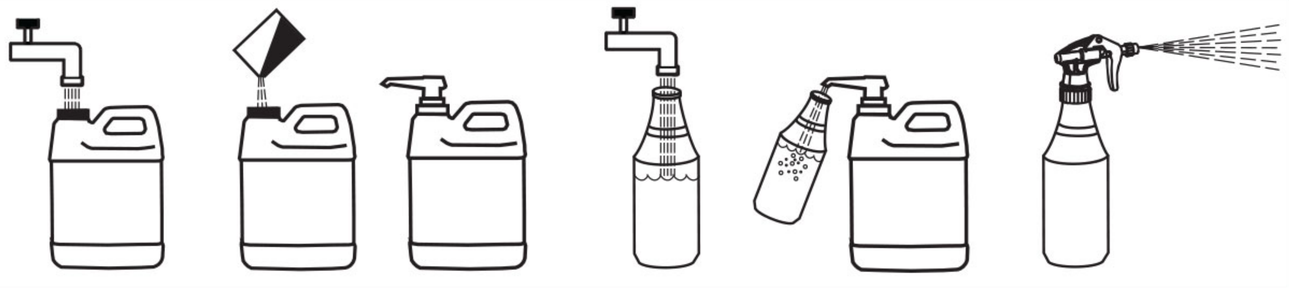
Abrasive ..... no
Appearance ..... pink clear liquid
Non-Flammable ..... yes
pH (1 to 256) ..... 7.0 ± 0.5
(concentrate) 7.0-9.0

EPA Registration No. 10324-108-3640
EPA Est. No. 3640-WI-01

Active Ingredients

The active ingredients in *Mark E II* are quaternary ammonia compounds.

** To make stock solution, fill ST-9955 to ridge with water. Add one pack of ST-758, then install pump. For spray cleaning, fill ST-9957 to marked line with water, then add <u>one</u> pump of solution from stock solution bottle. Lightly spray surfaces, and wipe dry.*



758tek 03/13

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

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: 8, Corrosive
DOT Shipping Name: UN1903, disinfectants, liquid, corrosive, n.o.s. (quaternary ammonium chloride), 8, PG III, Ltd Qty. Item 44155, Sub 4, Class 70
NSF Certified: None
Green Seal Certified: None

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

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

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

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
Alcohol ethoxylate	68439-46-3	Irritant		N.D.	9 – 12	
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 – 4	
Didecyl dimethyl ammonium chloride	7173-51-5	Irritant		N.D.	3 – 4	
Tetrasodium ethylenediamine tetraacetate	64-02-8	Irritant		N.D.	3 – 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): 8.0 – 8.6
pH (1:256 Dilution): 7.0 – 8.5
Specific Gravity (Water=1): 1.018

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} – male and female rats combined 809 mg/kg body weight
Acute Dermal – Greater than 2g/kg body weight
Primary Skin – Corrosive – Rabbits Tox. Category I for dermal effect
Primary Eye – Corrosive – Rabbits Tox. Category I
Very toxic to aquatic organisms. Information available upon request.

Personal protection: safety glasses, gloves

All ingredients are listed on the TSCA inventory.
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.

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