

SAFETY DATA SHEET

SECTION 1 PRODUCT and COMPANY INFORMATION

TRADE NAME: **Castle[®] H-110[™]**

PRODUCT TYPE: Disinfectant Cleaner

PRODUCT CODES: C39

MANUFACTURED FOR: Castle Products, Inc
424 St. Paul Street
Rochester, NY 14605
Phone: (800) 876-0222
EMERGENCY PHONE: (585) 275-3232

SECTION 2 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

DANGER: CORROSIVE, INHALATION HAZARD



May be fatal if inhaled, absorbed through skin, or swallowed.

Keep out of reach of children. May be corrosive to eyes. May be corrosive to skin.

POTENTIAL HEALTH EFFECTS:

Eyes: May be corrosive to eyes. May cause irreversible eye damage.

Skin: May be corrosive to skin. Causes skin burns. This product may be fatal if it is absorbed through the skin.

Inhalation: Do not breathe gas/fumes/vapor/spray. May be fatal if inhaled.

Ingestion: Harmful if swallowed. May be fatal if swallowed.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PEL	TLV	STEL	%
N-Octyl-N-decyl-N,N-dimethylammonium chloride	32426-11-2	NE	NE	NE	1.5-2%
N,N-Didecyl-N,N-dimethylammonium chloride	7173-51-5	NE	NE	NE	0.5-1%
N,N-Dioctyl-N,N-dimethylammonium chloride	5538-94-3	NE	NE	NE	0.5-1%
N-Alkyl (C12-16)-dimethylbenzylammonium chloride	68424-85-1	NE	NE	NE	2-2.5%
Tetrasodium ethylenediamine tetraacetate	64-02-8	NE	NE	NE	<1%
Ethanol	64-17-5	1000 ppm	1000 ppm	NE	<1%
Linear Alcohol Ethoxylate	34398-01-1	NE	NE	NE	<1%
Citric Acid	77-92-9	NE	NE	NE	<1%

SECTION 4 FIRST AID MEASURES

First Aid Procedures:

Eye contact: Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician or Poison Control Center immediately.

Skin contact: For skin contact flush with large amounts of water. Immediately take off all contaminated clothing. Call a physician or Poison Control Center immediately. Wash clothing separately before reuse.

Inhalation: Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by mouth to an unconscious person.

Notes to physician: If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT: >200°F (>93°C) LOWER EXPLOSIVE LIMIT: ND UPPER EXPLOSIVE LIMIT: ND

EXTINGUISHING MEDIA: Water fog, Foam, Dry chemical powder, Carbon dioxide (CO₂). Appropriate for surrounding fire.

UNUSUAL FIRE & EXPLOSION HAZARDS: None

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Isolate area. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Ventilate spaces before entering.

Environmental precautions: Prevent further leakage or spillage if safe to do so.

Methods for containment: Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up: Eliminate ignition sources including sources of electrical, static or frictional sparks.

Wear appropriate protective equipment and clothing during clean-up.

Small Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Large Spills: Dike far ahead of liquid spill for later disposal. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid breathing mist or vapor. Avoid contact with skin and eyes. Wear suitable protective clothing. Wash hands thoroughly after handling.

Storage: DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. Store in a dry place no lower in temperature than 50°F (10°C) or higher than 120°F (49°C). Keep in a well-ventilated place.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:

ACGIH Components	Type	Value
Ethanol (64-17-5)	STEL	1000 ppm
U.S. – OSHA Components		
Ethanol (64-17-5)	PEL	1000 ppm 1900 mg/m ³

Engineering controls: Use local exhaust ventilation.

Personal protective equipment:

General: Eye wash fountain and emergency showers are recommended.

Eye/face protection: Wear chemical goggles or Face-shield.

Skin protection: Wear suitable protective clothing. Use impervious gloves.

Respiratory protection: Not normally required if good ventilation is maintained.

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

BOILING POINT:	>200°F (>93°C)	SPECIFIC GRAVITY (H ₂ O=1):	1.02
VAPOR PRESSURE:	ND	PERCENT VOLATILE BY VOL %:	90-95%
VAPOR DENSITY (air=1):	ND	EVAPORATION RATE (Butyl Acetate=1):	ND
SOLUBILITY IN WATER:	100%	APPEARANCE & ODOR:	Clear, Blue liquid, Disinfectant Odor
pH (Water=7)	9-10		

SECTION 10 STABILITY and REACTIVITY DATA

STABILITY: Stable under normal conditions.

INCOMPATIBILITY (material to avoid): Strong oxidizing agents, Anionic surfactants.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen, ammonia, carbon monoxide, carbon dioxide, and low molecular weight hydrocarbons may be produced.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Components Test Results

Alkyl & Dialkyl Dimethyl Ammonium Chlorides Acute Oral LD50 Rat: 50 - 500 mg/kg

Ethanol (64-17-5)
Acute Inhalation LC50 Mouse: 0.039 mg/l 4 Hours
Acute Inhalation LC50 Rat: 20000 mg/l 10 Hours
Acute Oral LD50 Mouse: 3450 mg/kg
Acute Oral LD50 Rat: 7060 mg/kg

Dodecyl dimethyl ammonium chloride (7173-51-5) Acute Dermal LD50 Rabbit: 2730 mg/kg
Acute Oral LD50 Mouse: 268 mg/kg
Acute Oral LD50 Rat: 84 mg/kg

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens:

Ethanol (CAS 64-17-5): A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity: Ethanol (CAS 64-17-5) 1 Carcinogenic to humans.

SECTION 12 ECOLOGICAL INFORMATION

Components Test Results

Ethanol (64-17-5) EC50 Water flea (*Daphnia magna*): 11.2 - 11.2 mg/l 48 hours
LC50 Fathead minnow (*Pimephales promelas*): > 100 mg/l 96 hours
LC50 Striped bass (*Morone saxatilis*): 19.1 - 19.1 mg/l 96 hours

Alkyl dimethyl benzyl ammonium chloride (C12-16) (CAS# 68424-85-1)

LC50 White sturgeon (*Acipenser transmontanus*): 0 - 0 mg/l 96 hours

Dodecyl dimethyl ammonium chloride (7173-51-5): Aquatic toxicity Very toxic to aquatic organisms.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal instructions: PESTICIDE DISPOSAL - Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL - Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse empty container with water. Then offer for recycling or reconditioning. If not available, puncture and dispose in a sanitary landfill.

SECTION 14 TRANSPORT INFORMATION

For shipments of containers of less than 5 liters (1.3 gallons) packaged in cartons of 4 or fewer containers:

UN No.: NA

Hazard Class: NA

Packing Group: NA

Proper shipping name: Consumer Commodity ORM-D

No Label Required

Other transport information:

Before transporting product containers:

- Ensure that containers are firmly secured.

- Compliance with applicable regulations

For Shipments of containers larger than 5 liters (1.3 gallons):

UN No.: UN1903

ADR Class: 8

Packing Group: III

Proper shipping name: Disinfectants, Liquid, Corrosive, n.o.s.

Label: 8, Corrosive

SECTION 15 REGULATORY INFORMATION

US federal regulations: This product is considered a pesticide, and is therefore excluded from the United States TSCA Regulations.

Reportable Quantity There is no calculable reportable quantity (RQ) for this product.

CERCLA (Superfund) reportable quantity: None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance: No

Section 311 hazardous chemical: No

Canada: This Product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

Inventory status:

Country(s) or region Inventory name On inventory (yes/no)*	
Australia Australian Inventory of Chemical Substances (AICS)	No
Canada Domestic Substances List (DSL)	Yes
Canada Non-Domestic Substances List (NDSL)	No
China Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe European List of Notified Chemical Substances (ELINCS)	No
Japan Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea Existing Chemicals List (ECL)	Yes
New Zealand New Zealand Inventory	Yes
Philippines Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations:

US - New Jersey RTK - Substances: Listed substance: Ethanol (CAS 64-17-5) Substance no. 0844

US - Pennsylvania RTK - Hazardous Substances: Listed substance: Ethanol (CAS 64-17-5) Listed.

SECTION 16 OTHER INFORMATION

Further information: HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings	Health: 3
	Flammability: 1
	Physical hazard: 0
NFPA ratings	Health: 3
	Flammability: 1
	Instability: 0

Other: NA-Not Applicable, ND-Not Determined, NE-Not Established.

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PREPARED: 7/3/01

UPDATED: 11/1/2013

PRODUCT #: C39