

SAFETY DATA SHEET

SECTION 1 PRODUCT and COMPANY INFORMATION

TRADE NAME: **Castle® H-110™**
PRODUCT TYPE: Concentrated Disinfectant Cleaner
PRODUCT CODE: C39

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

SECTION 2 HAZARDS IDENTIFICATION



GHS CLASSIFICATION: DANGER: May be fatal if inhaled, absorbed through skin, or swallowed. May be corrosive to eyes. May be corrosive to skin.

Keep out of reach of children.

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: May be fatal if swallowed.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	%
Water	7732-18-5	>90%
N-Alkyl (C12-16)-dimethylbenzylammonium chloride	68424-85-1	2-2.5%
N-Octyl-N-decyl-N,N-dimethylammonium chloride	32426-11-2	1.5-2%
N,N-Didecyl-N,N-dimethylammonium chloride	7173-51-5	0.5-1%
N,N-Dioctyl-N,N-dimethylammonium chloride	5538-94-3	0.5-1%
Tetrasodium ethylenediamine tetraacetate	64-02-8	<1%
Ethanol	64-17-5	<1%
Linear Alcohol Ethoxylate	34398-01-1	<1%
Citric Acid	77-92-9	<1%

SECTION 4 FIRST AID MEASURES

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

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

SPECIFIC/UNUSUAL HAZARDS: Irritating gasses may be produced which will require SCBA or a fresh air source.

SPECIAL FIRE FIGHTING EQUIPMENT and PRECAUTIONS for FIREFIGHTERS: As in any fire, wear pressure-demand self-contained breathing apparatus, 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: 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 disposal.

Large Spills: A large spill is not likely to occur.

SECTION 7 HANDLING AND STORAGE

Handling: Avoid breathing mist. Avoid contact with skin and eyes. Wear suitable protective clothing. Wash hands 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

Control Parameters: NE

Appropriate Engineering Controls: Maintain adequate local exhaust ventilation.

Individual Protective Measures - Personal Protective Equipment:

Gloves: Wear impervious gloves.

Eye/Face Protection: Wear safety glasses or goggles.

Skin Protection: Wear clothing suited to the task being performed.

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

SECTION 9 PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE: Clear, Blue Liquid

ODOR: Disinfectant Odor

ODOR THRESHOLD: ND

MELTING/FREEZING POINT: <32°F (<0°C)

BOILING POINT: >212°F (>100°C)

BOILING RANGE: ND

FLASH POINT: >200°F (>93°C)

LOWER EXPLOSIVE LIMIT: ND

UPPER EXPLOSIVE LIMIT: ND

FLAMMABILITY (solid, gas): Not Flammable

AUTOIGNITION TEMPERATURE: ND

EVAPORATION RATE (Butyl Acetate=1): ND

VAPOR PRESSURE: ND

VAPOR DENSITY (air=1): ND

RELATIVE DENSITY: (H₂O=1): 1.0

SOLUBILITY IN WATER: Completely Soluble

PARTITION COEFFICIENT (n-octanol/water): ND

pH: 9-10

DECOMPOSITION TEMPERATURE: ND

VISCOSITY: ND

PERCENT VOLATILE BY VOL %: 90-95%

CARB VOC: ND

SECTION 10 STABILITY and REACTIVITY DATA

CHEMICAL STABILITY: Stable under normal conditions.

POSSIBILITY of HAZARDOUS REACTIONS: ND

CONDITIONS TO AVOID: ND

INCOMPATIBLE MATERIALS: 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

HEALTH EFFECTS: No product data available.

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.

LIKELY ROUTES of EXPOSURE: INHALATION: Yes
INGESTION: No
SKIN CONTACT: Yes
EYE CONTACT: No

SYMPTOMS:

EFFECTS OF EXPOSURE: IMMEDIATE: ND
DELAYED: ND
SHORT-TERM: ND
LONG-TERM: ND

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY: No Data Available.

PERSISTANCE and DEGRADABILITY: ND

BIOACCUMULATIVE POTENTIAL: ND

MOBILITY in SOIL: ND

OTHER ADVERSE EFFECTS: None Known.

Components Test Results:

Ethanol (64-17-5)	EC50 Water flea (<i>Daphnia magna</i>): 11.2 - 11.2 mg/l 48 hours LC50 Fathead minnow (<i>Pimephales promelas</i>): > 100 mg/l 96 hours LC50 Striped bass (<i>Morone saxatilis</i>): 19.1 - 19.1 mg/l 96 hours
Alkyl dimethyl benzyl ammonium chloride (C12-16) (CAS# 68424-85-1)	LC50 White sturgeon (<i>Acipenser transmontanus</i>): 10 - 50 mg/l 96 hours
Dodecyl dimethyl ammonium chloride (7173-51-5):	Aquatic toxicity: Very toxic to aquatic organisms.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal Considerations: Dispose according to all applicable Federal, State, and Local regulations.

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
Personal Protection: B
Hazard: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
Protection: A-Goggles, B-Goggles & gloves, C-Goggles, gloves, & protective wear.

NFPA ratings Health: 3
Flammability: 1
Instability: 0

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

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