

## 1. Identification

**Product identifier** Arsenal QT 5

**Other means of identification**

**SDS number** 585N-98A

**Product code** HIL00846

**Product registration number** 6836-366-1658

**Recommended use** Disinfectant/Cleaner

**Recommended restrictions** For Labeled Use Only

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Company name** HILLYARD INDUSTRIES

**Address** 302 North Fourth St.  
St. Joseph, MO 64501

**Contact person** Regulatory Affairs

**Telephone number** (816) 233-1321 (Ext. 8285)

**Fax** (816) 383-8485

**E-mail** regulatoryaffairs@hillyard.com

**Emergency telephone #** (800) 424-9300  
(Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals)

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards**

Acute toxicity, oral	Category 4
Acute toxicity, dermal	Category 3
Acute toxicity, inhalation	Category 2
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger

**Hazard statement** Harmful if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Fatal if inhaled.

**Precautionary statement**

**Prevention** Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Take off contaminated clothing and wash it before reuse. IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting. IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law in compliance with applicable federal, state and local requirements. Container Disposal: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.
<b>Hazard(s) not otherwise classified (HNOC)</b>	9.25% of the mixture consists of ingredient(s) of unknown toxicity.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Diocetyl dimethyl ammonium chloride		5538-94-3	5 - 10
Quaternary Ammonium Compounds, Coco Alkyltrimethyl, Chlorides		61789-18-2	5 - 10
Alkyl dimethyl benzyl ammonium chloride (C12-18)		68391-01-5	1 - 5
Other components below reportable levels			88.0177

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off immediately all contaminated clothing. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up** This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling** Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Store in tightly closed container.

Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Open dumping is prohibited. Store in original container in areas inaccessible to children.

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Avoid contact with eyes. Wear chemical goggles.

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

#### Other

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards** None known.

**General hygiene considerations** Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

**Appearance** Clear, blue liquid.

**Physical state** Liquid.

**Form** Liquid.

**Color** Blue

<b>Odor</b>	Lemon - Quat Odor
<b>Odor threshold</b>	Not available.
<b>pH</b>	7 - 8.5
<b>Melting point/freezing point</b>	Not applicable / Not available
<b>Initial boiling point and boiling range</b>	208 °F (97.78 °C)
<b>Flash point</b>	> 200.0 °F (> 93.3 °C) Tag Closed Cup
<b>Evaporation rate</b>	< 1 Ethyl ether=1
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	17.59 mm Hg
<b>Vapor density</b>	0.7363 Air=1
<b>Relative density</b>	0.995
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100 % Complete
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	8.28 lb/gal
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	85.5 - 87.5 %
<b>VOC</b>	0.73 %

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Fatal if inhaled.
<b>Skin contact</b>	Toxic in contact with skin. Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects

<b>Acute toxicity</b>	Fatal if inhaled. Toxic in contact with skin. Harmful if swallowed.
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.

## Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Not classifiable as to carcinogenicity to humans.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results	
Arsenal QT 5			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	18941.8242 mg/l, 48 hours estimated
Fish	LC50	Fish	31655.5332 mg/l, 96 hours estimated

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations. 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.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Container Disposal: Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Fill container ¼ full with water and reclose the container. Agitate vigorously, and dispose of rinsate consistent with pesticide disposal instructions. Repeat two more times. Then offer for recycling if available or puncture and dispose in sanitary landfill or by other procedures approved by state and local authorities. Follow pesticide disposal instructions for rinsate. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state, and federal regulations.

## 14. Transport information

### DOT

UN number	UN1760
UN proper shipping name	Corrosive liquid, N.O.S. (COCOALKYLTRIMETHYLAMMONIUMCHLORIDE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	B2, IB2, T11, TP2, TP27
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

### DOT



**General information** This material is regulated under IATA and IMDG regulations. Contact manufacturer for shipping instructions.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)** One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Acute toxicity (any route of exposure)  
Skin corrosion or irritation  
Serious eye damage or eye irritation

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Contains component(s) regulated under the Safe Drinking Water Act.**FIFRA Information** FIFRA: This product is a U.S. EPA Registered pesticide, EPA Reg. No. 6836-366-1658, and is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide products. The hazard information required on the pesticide label is reproduced here.**PRECAUTIONARY STATEMENTS:****HAZARDS TO HUMANS AND DOMESTIC ANIMALS.**

**DANGER.** Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin, or on clothing. May be fatal if inhaled or absorbed through the skin. Harmful if swallowed. Do not breathe vapor. Wear protective eyewear (goggles, face shield or safety glasses), protective clothing and protective (rubber or chemical resistant) gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**KEEP OUT OF REACH OF CHILDREN****DANGER/PELIGRO**

**FIRST AID: IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. **IF SWALLOWED:** 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. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling poison control center or doctor or going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. You may also contact the poison control center at 1-800-222-1222 for emergency medical treatment information.

**US state regulations****California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	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)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	05-26-2021
<b>Revision date</b>	07-21-2021
<b>Version #</b>	02
<b>HMIS® ratings</b>	Health: 3 Flammability: 0 Physical hazard: 0

**Disclaimer**

HILLYARD cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose, or of any nature are made with respect to the product(s) or information contained in this material safety data sheet. The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate. The buyer or user assumes all risks associated with the use, misuse or disposal of this product. The buyer or user is responsible to comply with all federal, state or local regulations concerning the use, misuse or disposal of these products.

**Revision information**

Hazard(s) identification: Hazard(s) not otherwise classified (HNOC)

Exposure controls/personal protection: Eye/face protection

Exposure controls/personal protection: Hand protection

Exposure controls/personal protection: Respiratory protection

Physical & Chemical Properties: Multiple Properties

Transport Information: Material Transportation Information