



## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	<b>LEMON DISINFECTANT</b>	
<b>Other means of identification</b>		
SDS number	535N96A	
Product code	HIL00179	
Product registration number	47371-36-1658	
<b>Recommended use</b>	Disinfectant/Cleaner	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Manufacturer</b>		
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

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Serious eye damage/eye irritation	Category 2B
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		
Hazard symbol	None.	
Signal word	Warning	
Hazard statement	Causes eye irritation. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.	
<b>Precautionary statement</b>		
Prevention	Wash thoroughly after handling. Avoid release to the environment.	
Response	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations. 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.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	
<b>Supplemental information</b>	None.	

### 3. Composition/information on ingredients

#### Mixtures

Material name: LEMON DISINFECTANT  
HIL00179 Version #: 01 Issue date: 04-24-2015

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Chemical name	Common name and synonyms	CAS number	%
Didecyldimethylammonium chloride		7173-51-5	< 1
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides		68424-85-1	< 1
Other components below reportable levels			90 - 100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<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. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Drink water as a precaution. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 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.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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.
<b>Methods and materials for containment and cleaning up</b>	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. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. 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.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in original tightly closed container. 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

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	General ventilation normally adequate.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eyeface protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	For prolonged or repeated skin contact use suitable protective gloves.
<b>Other</b>	Normal work clothing (long sleeved shirts and long pants) is recommended.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	None known.
<b>General hygiene considerations</b>	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

<b>Appearance</b>	Clear liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Yellow
<b>Odor</b>	Lemon odor
<b>Odor threshold</b>	Not available
<b>pH</b>	10 - 11.5
<b>Melting point/freezing point</b>	Not applicable / Not available
<b>Initial boiling point and boiling range</b>	212 °F (100 °C)
<b>Flash point</b>	> 212.0 °F (> 100.0 °C) Tag Closed Cup
<b>Evaporation rate</b>	< 1 Ethyl ether = 1
<b>Flammability (solid, gas)</b>	Not available.
<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>	17.5 mm Hg
<b>Vapor density</b>	< 1 Air =1
<b>Relative density</b>	1 at 77°F
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	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

**Other information**

Density	8.32 lb/gal
Percent volatile	97 - 98
VOC (Weight %)	0.39

**10. Stability and reactivity**

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

**11. Toxicological information****Information on likely routes of exposure**

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes eye irritation.
Ingestion	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort.

**Information on toxicological effects****Acute toxicity**

Product	Species	Test Results
LEMON DISINFECTANT		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	44444.4453 mg/l, 2 Hours estimated
	Rat	11869.1611 mg/l, 4 Hours estimated
Oral	Guinea pig	91111.1094 mg/l, 0.5 Hours estimated
	Mouse	53333.332 mg/l, 4 Hours estimated
LD50	Guinea pig	2296.9648 g/kg estimated
	Mouse	27767.6328 mg/kg estimated
	Rat	8958.6992 mg/kg estimated

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Causes eye irritation.
<b>Respiratory or skin sensitization</b>	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	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** Prolonged inhalation may be harmful.

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

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

Product	Species	Test Results
LEMON DISINFECTANT		
Aquatic		
Crustacea	EC50 Daphnia	869.1048 mg/l, 48 hours estimated
Fish	LC50 Fish	73.0236 mg/l, 96 hours estimated

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**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** 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** Waste from normal product use may be sewerred to a public owned treatment works (POTW) in compliance with applicable Federal, State, and local pretreatment requirements.  
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.

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.  
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**

Not regulated as dangerous goods.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.



## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
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

**Issue date** 04-24-2015

**Version #** 01

**HMIS® ratings** Health: 2  
Flammability: 0  
Physical hazard: 0

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