NATIONAL CHEMICAL LABORATORIES, INC.

SAFETY DATA SHEET

Section 1 - Identification

Product Identifier
CITRUS FLOWER-QUAT  Disinfectant, Cleaner, Mildewstat, Fungicide, Virucide, Deodorizer

Other means of identification
0234

Recommended use
Disinfectant.

Recommended restrictions
EPA Registered Product. For commercial and industrial use only.

Manufacturer / Importer / Supplier / Distributor Information

Company Name
National Chemical Laboratories of PA, Inc.

Address
401 N. 10th Street - Philadelphia, PA 19123

Emergency Phone
1 (800) 255-3924

Contact
CHEM-TEL

Telephone
1 (215) 922-1200

Supplier Email
info@nclonline.com

Section 2 - Hazard(s) Identification

SDS Hazards and Warnings are based on the undiluted product. Refer to diluted SDS for Ready-To-Use Hazards and Warnings.

Physical Hazards
Not Classified

Health Hazards
Serious eye damage/eye irritation 2A
Skin corrosion/irritation 2

OSHA defined hazards
Not Classified.

Label Elements

Hazard Symbol
Warning

Signal Word
Warning

Hazard Statement
Causes skin irritation. Causes serious eye irritation.

Precautionary statement

Prevention
Wash thoroughly after handling. Wear protective gloves. Wear eye/face protection.

Response
If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage
Store away from incompatible materials.

Disposal
Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)
None known.

Section 3 - Composition/Information on ingredients

Mixture

Hazardous Components
Ingredient Name
Didecyl dimethyl ammonium chloride
4-Nonylphenol, branched, ethoxylated
Alkyl dimethyl benzyl ammonium chloride (C12-16)

CAS #
7173-51-5
127087-87-0
68424-85-1

%'
1 - 3
0.1 - 2
0.1 - 1.0

Section 4 - First-aid Measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Remove contaminated clothing. Wash with plenty of soap and water. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if irritation develops and persists.
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Most Important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Section 5 - Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions

Move containers from fire area if you can do it without risk.

General fire hazards

No unusual fire or explosion hazards noted.

Specific Methods

Use standard fire fighting procedures and consider the hazards of other involved materials.

Section 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 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.

Section 7 - Handling and storage

Precautions for safe handling

Do not get this material in contact with eyes. Avoid contact with skin. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.

Conditions for safe storage, including any incompatibilities

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. PESTICIDE STORAGE: Store in a dry place no lower in temperature than 50°F or higher than 120°F. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure control/personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) 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

If use of product risks exposure to contact, wear safety glasses with side shields.

Skin protection

Impervious gloves are recommended for prolonged use.

Hand protection

If use of product risk exposure to contact, wear suitable protective clothing.

Other

In case of insufficient ventilation, wear suitable respiratory equipment.

Respiratory protection

Wear appropriate thermal protective clothing, when necessary.

Thermal hazards

General hygiene considerations

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.

Section 9 - Physical and chemical properties

Appearance

CITRUS FLOWER-QUAT  Disinfectant, Cleaner, Mildewstat, Fungicide, Virucide, Deodorizer  0234
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Appearance
Physical state: Liquid.

Form: Clear, thin liquid.

Color: Blue.

Odor: Citrus Flower

Odor threshold: Not available.

pH: 7.5

Melting point/freezing point: Not available.

Initial boiling point and boiling range: 212 °F (100 °C)

Flash point: None to boiling.

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits
- Flammability limit - lower (%): Not available.
- Flammability limit - upper (%): Not available.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure: Similar to water.

Vapor density: Not available.

Relative density: 1.00 ± 0.01

Relative density temperature: 75 °F (23.9 °C)

Solubilities (water): Completely soluble.

Partition Coefficient n-octanol/water: Not available

Auto-ignition temperature: Not Available

Decomposition temperature: Not Available

Viscosity: <10 cSt

Viscosity Temperature: 75 °F (23.9 °C)

Solubilities (water):
- Completely soluble.

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
- Contact with incompatible materials.

Incompatible materials
- Strong oxidizing agents.

Hazardous Decomposition Products
- No hazardous decomposition products are known.

Section 10 - Stability and reactivity

Section 11 - Toxicological information

Information on likely routes of exposure
- Ingestion: Expected to be a low ingestion hazard.
- Inhalation: No adverse effects due to inhalation are expected.
- Skin contact: Causes skin irritation.
- Eye contact: Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics
- Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects.

Acute toxicity
- Not expected to be acutely toxic.

<table>
<thead>
<tr>
<th>Components</th>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride (C12-16) (CAS 68424-85-1)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rat</td>
<td>3560 mg/kg</td>
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<td></td>
<td></td>
<td></td>
<td>430 mg/kg</td>
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<td></td>
<td>Acute</td>
<td>Oral</td>
<td>LD50</td>
<td>Rabbit (Male / Female)</td>
<td>3140 / 2730 mg/kg</td>
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<tr>
<td>Didecyl dimethyl ammonium chloride (CAS 7173-51-5)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rat (Male / Female)</td>
<td>238 / 331 mg/kg</td>
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</table>

Skin corrosion/irritation
- Causes skin irritation.

Serious eye damage/eye irritation
- Causes serious eye irritation.

Respiratory sensitization
- Not a respiratory sensitizer.
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**Carcinogenicity**
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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

**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.

### Section 12 - Ecological Information

**Ecotoxicity**
The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

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

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Component</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched, ethoxylated (CAS 127087-87-0)</td>
<td>2.1 - 3.4 (Calculated)</td>
</tr>
</tbody>
</table>

**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.

### 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. Offer for recycling, if available. Triple rinse container promptly after emptying.

(For containers 5 gallons or less):
Triple rinse as follows: Fill container 1/4 full with water and recap. Agitate vigorously. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose in a sanitary landfill.

Dispose in accordance with applicable federal, state, and local regulations.

**Local disposal regulations**
Dispose of in accordance with local regulations.

**Hazardous waste code**
Waste codes should be assigned by the user based on the application for which the product was used.

**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**
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### Section 14 - Transport information

**DOT**
Not regulated as dangerous goods.

**IATA**
Not regulated as dangerous goods.

**IMDG**
Not regulated as dangerous goods.

**Transportation in bulk according to Annex II of MARPOL 73/78 and IBC Code**
This substance/mixture is not intended to be transported in bulk.

### Section 15 - Regulatory Information

**US federal regulations**
This product is a U.S. EPA registered pesticide.
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 CFR707, Subpt. D)**
Not regulated.

Not listed

**CERCLA Hazardous Substance List (40 CFR 302.4)**
Not listed

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

<table>
<thead>
<tr>
<th>Hazard Categories</th>
<th>Immediate Hazard</th>
<th>Delayed Hazard</th>
<th>Fire Hazard</th>
<th>Pressure Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
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Reactivity Hazard: No
SARA 302 Extremely hazardous substance: Not listed.
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting): Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HSPs) List: Not listed.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.
Food and Drug Administration (FDA): Not regulated.

US state regulations
US.Massachusetts RTK - Substance List: Not regulated.
US.New Jersey Worker and Community Right-to-Know Act: Not listed.
US.Pennsylvania RTK - Hazardous Substances: Not listed.
US.Rhode Island RTK: Not regulated.

This material is not known to expose you to a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

International Inventories
<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory Name</th>
<th>On Inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
</tr>
<tr>
<td>United States Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies 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).

Section 16 - Other information, including date of preparation or last version

| Revision date | 1/17/2018 |
| Version #     | 02        |
| Further information | Some information may conflict with EPA mandated label information. |
| Disclaimer     | The information contained herein was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond the manufacturer's control, it is the user's responsibility both to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense arising from the product's improper use. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this SDS. Various government agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this SDS. The user should review these regulations to ensure full compliance. |