SAFETY DATA SHEET

Section 1 - Identification

Product Identifier: Earth Sense® TP #21 Neutral Disinfectant Cleaner 256
Other means of identification: 4021
Recommended use: Neutral Disinfectant Cleaner Deodorizer
Recommended restrictions: EPA Registered Product. For Commercial and Industrial Use Only. This product is intended to be diluted prior to use.

Company Name: National Chemical Laboratories of PA, Inc.
Address: 401 N. 10th Street - Philadelphia, PA 19123
Telephone: 1 (215) 922-1200
Supplier Email: info@nclonline.com
Contact: CHEM-TEL
Emergency Phone: 1 (800) 255-3924

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.

Signal Word: Danger
Hazard Statement: Causes severe skin burns and eye damage. Harmful if swallowed. Toxic to aquatic life.
Precautionary statement:
Prevention: Wear protective gloves. Wear eye/face protection. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
Response: If on skin: Wash with plenty of soap and 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. IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Take off contaminated clothing and wash before reuse.
Storage: Keep container tightly closed. Store away from incompatible materials.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition/Information on ingredients

Mixture

Hazardous Components

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didecyl dimethyl ammonium chloride</td>
<td>7173-51-5</td>
<td>6 - 9</td>
</tr>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride (C12-16)</td>
<td>68424-85-1</td>
<td>4 - 7</td>
</tr>
<tr>
<td>Tetrasodium ethylenediamine tetraacetate</td>
<td>64-02-8</td>
<td>1 - 4</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>127087-87-0</td>
<td>1 - 4</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>
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. DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than the hips to help prevent aspiration. Call a physician or poison control center immediately.

**Most Important symptoms/effects, acute and delayed**
Corrosive effects. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Causes severe skin burns. Prolonged or repeated skin contact may aggravate existing skin conditions. Inhalation of mists may aggravate existing chronic respiratory conditions such as asthma, emphysema or bronchitis.

**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. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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

Section 8 - Exposure control/personal protection

**Occupational exposure limits**
**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol (CAS 64-17-5)</td>
<td>TWA</td>
<td>1900 mg/m³, 1000 ppm</td>
<td></td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Alcohol (CAS 64-17-5)</td>
<td>STEL</td>
<td>1000 ppm</td>
<td></td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
</table>
SAFETY DATA SHEET

Ethyl Alcohol (CAS 64-17-5)  
IDLH  3300 ppm  
TWA  1900 mg/m³, 1000 ppm

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  
Hand protection  
Impervious gloves are recommended for prolonged use.

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

Respiratory protection  
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards  
Wear appropriate thermal protective clothing, when necessary.

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  
Physical state  Liquid.
Form  Clear, thin liquid.
Color  Colorless.
Odor  Mild Quaternary.
Odor threshold  Not available.
pH  7.4
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  1.01 ± 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)

Section 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  
Contact with incompatible materials.
Incompatible materials  
Strong oxidizing agents. Anionic surfactants.
Hazardous Decomposition Products  
No hazardous decomposition products are known.

Section 11 - Toxicological information

Information on likely routes of exposure  
Ingestion  Harmful if swallowed.
Inhalation: May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact: Causes severe skin burns.

Eye contact: Causes serious eye damage.

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

Information on toxicological effects:

Acute toxicity: Harmful if swallowed.

<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>
</tr>
<tr>
<td>Didecyl dimethyl ammonium chloride (CAS 7173-51-5)</td>
<td>Acute</td>
<td>Dermal</td>
<td>LD50</td>
<td>Rabbit (Male / Female)</td>
<td>3140 / 2730 mg/kg</td>
</tr>
<tr>
<td>Ethyl Alcohol (CAS 64-17-5)</td>
<td>Acute</td>
<td>Inhalation Vapor</td>
<td>LC50</td>
<td>Rat</td>
<td>117 - 125 mg/l, 4 h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes severe skin burns.

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

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

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.

Component(s):
Alkyl dimethyl benzyl ammonium chloride (C12-16), 68424-85-1

Aquatic

<table>
<thead>
<tr>
<th>Level</th>
<th>Type</th>
<th>Code</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
<td>Crustacea</td>
<td>NOEL</td>
<td>Daphnia</td>
<td>0.0042 mg/l</td>
</tr>
<tr>
<td>Acute</td>
<td>Fish</td>
<td>EC50</td>
<td>Oncorhynchus mykiss (rainbow trout)</td>
<td>&gt;0.022 mg/l, 96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Remarks: No toxicity at the limit of solubility.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
<td>0.515 mg/l</td>
</tr>
</tbody>
</table>

Didecyl dimethyl ammonium chloride, 7173-51-5

Aquatic

<table>
<thead>
<tr>
<th>Aquatic</th>
<th>Algae</th>
<th>EC50</th>
<th>Algae</th>
<th>0.062 mg/l, 72 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>Crustacea</td>
<td>LC50</td>
<td>Daphnia</td>
<td>0.057 mg/l, 48 h</td>
</tr>
<tr>
<td>Chronic</td>
<td>Crustacea</td>
<td>NOEC</td>
<td>Daphnia</td>
<td>0.01 mg/l</td>
</tr>
<tr>
<td>Aquatic</td>
<td>Crustacea</td>
<td>NOEC</td>
<td>Daphnia</td>
<td>0.021 mg/l, 21 d</td>
</tr>
<tr>
<td>Acute</td>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
<td>0.032 mg/l, 96 h</td>
</tr>
<tr>
<td>Aquatic</td>
<td>Fish</td>
<td>LC50</td>
<td>Danio rerio</td>
<td>0.97 mg/l, 96 h</td>
</tr>
</tbody>
</table>

4-Nonylphenol, branched, ethoxylated, 127087-87-0

Aquatic

<table>
<thead>
<tr>
<th>Aquatic</th>
<th>Algae</th>
<th>EC50</th>
<th>Water flea (Daphnia magna)</th>
<th>12.2 mg/l, 48 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>Crustacea</td>
<td>LC50</td>
<td>Bluegill (leposim macrochirus)</td>
<td>1 - 1.8 mg/l, 96 h</td>
</tr>
</tbody>
</table>

Ethyl Alcohol, 64-17-5

Aquatic

<table>
<thead>
<tr>
<th>Aquatic</th>
<th>Algae</th>
<th>EC50</th>
<th>Algae</th>
<th>675 mg/l, 72 h</th>
</tr>
</thead>
</table>
Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Partition coefficient n-octanol / water log (Kow)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated (CAS 127087-87-0)</td>
<td>2.1 - 3.4 (Calculated)</td>
</tr>
<tr>
<td>Ethyl Alcohol (CAS 64-17-5)</td>
<td>-0.31</td>
</tr>
</tbody>
</table>

Mobility in soil
Expected to be highly mobile in soil.

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. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose in a sanitary landfill. (For containers greater than 5 gallons):
Triple rinse as follows: Fill container 1/4 full with water. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose in a sanitary landfill. PACKET DISPOSAL - Do not reuse; discard empty container and put in trash.

Local disposal regulations
Dispose of in accordance with local 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
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
UN number: UN1903
Proper shipping name: DISINFECTANT LIQUID CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUND)
Transport hazard class(es): 8
Packing group: III
Special precautions for user:
Labels required: 8
Special provisions: IB3, T4, TP1
Packaging exemption: 154
Packaging non bulk: 203
Packaging bulk: 241

IATA
UN number: UN1903
Proper shipping name: DISINFECTANT LIQUID CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUND)
Transport hazard class(es): 8
Packing group: III
Environmental hazards: No
ERG Code: 8L
Special precautions for user:
Other Information: Read safety instructions, SDS and emergency procedures before handling.

IMDG
UN number: UN1903
Proper shipping name: DISINFECTANT LIQUID CORROSIVE, N.O.S. (QUATERNARY AMMONIUM COMPOUND)
Transport hazard class(es): 8
SAFETY DATA SHEET

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.
CERCLA Hazardous Substance List (40 CFR 302.4) Result
Components
Ethyl Alcohol (CAS 64-17-5) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories
Immediate Hazard Yes
Delayed Hazard No
Fire Hazard No
Pressure Hazard No
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 regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.
Safe Drinking Water Act (SDWA) Not regulated.
Food and Drug Administration (FDA) Not regulated.

US state regulations
US. Massachusetts RTK - Substance List Components
Ethyl Alcohol (CAS 64-17-5)
US. New Jersey Worker and Community Right-to-Know Act Components
Ethyl Alcohol (CAS 64-17-5)
US. Pennsylvania RTK - Hazardous Substances Components
Ethyl Alcohol (CAS 64-17-5)
US. Rhode Island RTK Not regulated.
US - California Proposition 65 This material is not know to expose you to a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

International Inventories

Country(s) or region Inventory Name On Inventory (yes/no)*
Australia Australian Inventory of Chemical Substances (AICS) Yes
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) No
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 Yes
United States Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

*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.