1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Name: Orange-D Natural Citrus Cleaner Degreaser

Other means of identification
Product Code: NL544
Synonyms: None

Details of the supplier of the safety data sheet
Company Name: Nyco Products Company
Address: 5332 Dansher Road, Countryside, IL 60525
Phone: (708) 579-8100
Email: nycoproducts.com

Emergency telephone number
Emergency Telephone: Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
OSHA Regulatory Status: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 5</td>
</tr>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Not classified</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Label elements

Warning

Hazard statements
May be harmful if swallowed
Causes skin irritation
May cause an allergic skin reaction
Flammable liquid and vapor

Emergency Overview
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
Call a POISON CENTER or doctor/physician if you feel unwell
Specific Treatment (See Section 4 on the SDS)
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information
• Very toxic to aquatic life with long lasting effects
• Harmful to aquatic life
Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Terpenes</td>
<td>5989-27-5</td>
<td>60-100</td>
<td>*</td>
</tr>
<tr>
<td>Nonylphenol Ethoxylate</td>
<td>9016-45-9</td>
<td>3-7</td>
<td>*</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice
Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.

Skin Contact
Wash off immediately with plenty of water. Wash contaminated clothing before reuse. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Inhalation
Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is
not required. Move to fresh air in case of accidental inhalation of vapors. Move to fresh air in case of accidental inhalation of vapors or decomposition products.

**Ingestion**
Do NOT induce vomiting. Drink plenty of water. Immediate medical attention is not required. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

**Self-protection of the first aider**
Remove all sources of ignition. Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**
Any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**
May cause sensitization of susceptible persons. Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

**Unsuitable extinguishing media**
Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**
In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

**Explosion data**
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment**
Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material. Take precautionary measures against static discharges.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
Advice on safe handling
Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat.

Incompatible materials
None known based on information supplied.

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
</table>
| 2-(2-methoxypropoxy)propano 34590-94-8 | STEL: 150 ppm  
TWA: 100 ppm  
S* | TWA: 100 ppm  
TWA: 600 mg/m³  
(vacated) TWA: 100 ppm  
(vacated) STEL: 150 ppm  
(vacated) STEL: 900 mg/m³  
S* | IDLH: 600 ppm  
TWA: 100 ppm  
TWA: 600 mg/m³  
STEL: 150 ppm  
STEL: 900 mg/m³ |

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers, Eyewash stations & Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles. Face protection shield.

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

Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear Yellow</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No Information available</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
Harmful by inhalation and in contact with eyes and skin.

Inhalation
Avoid breathing vapors or mists. May cause irritation of respiratory tract.

Eye contact
Avoid contact with eyes. Contact with eyes may cause irritation.

Skin Contact
Avoid contact with skin. Harmful in contact with skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact.

Ingestion
Harmful if swallowed. May cause gastrointestinal irritation. May cause stomach distress, nausea, or vomiting.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Terpenes 5989-27-5</td>
<td>4400 mg/kg (Rat)</td>
<td>&gt; 5 g/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Nonylphenol Ethoxylate 9016-45-9</td>
<td>2590 mg/kg (Rat) = 1310 mg/kg (Rat)</td>
<td>1780 µL/kg (Rabbit) = 2 mL/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>
Information on toxicological effects

Symptoms
No Information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No Information available.

Germ cell mutagenicity
No Information available.

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Terpenes 5989-27-5</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as a human carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity
No Information available.

STOT - single exposure
No Information available.

STOT - repeated exposure
No Information available.

Chronic toxicity
Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

Target organ effects
Central nervous system, EYES, Respiratory system.

Aspiration hazard
No Information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity
0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.
ATEmix (oral) 4,667.00
ATEmix (dermal) 5,403.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Terpenes 5989-27-5</td>
<td>-</td>
<td>0.619 - 0.796: 96 h Pimephales promelas mg/L LC50 flow-through 35: 96 h Oncorhynchus mykiss mg/L LC50</td>
<td>-</td>
</tr>
<tr>
<td>Nonylphenol Ethoxylate 9016-45-9</td>
<td>-</td>
<td>5: 96 h Fish mg/L LC50</td>
<td>-</td>
</tr>
<tr>
<td>2-(2-methoxypropoxy)propano 34590-94-8</td>
<td>-</td>
<td>10000: 96 h Pimephales promelas mg/L LC50 static</td>
<td>1919: 48 h Daphnia magna mg/L LC50</td>
</tr>
</tbody>
</table>

Persistence and degradability
No Information available.

Bioaccumulation
No Information available.

Other adverse effects
No Information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.
This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange Terpenes</td>
<td>Toxic</td>
</tr>
<tr>
<td>5989-27-5</td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT Ground - “Non-bulk shipments may be non-regulated per 49CFR 173.150(l)(2)”

**DOT**

- UN/ID No.: UN2319
- Proper shipping name: Terpene Hydrocarbons, n.o.s.
- Hazard Class: 3
- Packing Group: III
- Special Provisions: B1, IB3, T4, TP1, TP29
- Description: UN2319, Terpene Hydrocarbons, n.o.s., 3, III
- Emergency Response Guide Number: 128

**TDG**

- UN/ID No.: UN2319
- Proper shipping name: Terpene Hydrocarbons, n.o.s.
- Hazard Class: 3
- Packing Group: III
- Description: UN2319, Terpene Hydrocarbons, n.o.s., 3, III

15. REGULATORY INFORMATION

International Inventories

- TSCA: Complies
- DSL/NDSL: Complies

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-methoxypropoxy)propano - 34590-94-8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- Acute health hazard: Yes
- Chronic Health Hazard: No
- Fire hazard: Yes
- Sudden release of pressure hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material
US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-methoxypropoxy)propano 34590-94-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number  Not Applicable

16. OTHER INFORMATION

NFPA
Health hazards 2  Flammability 2  Instability 0

HMIS
Health hazards 2  Flammability 2  Physical hazards 0

Physical and Chemical Properties  Yes
Personal protection  B

Issue Date  18-Sep-2015
Revision Date  17-Apr-2015
Revision Note  No Information available

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet