1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Name Clean Freeze Freezer Cleaner

Other means of identification
Product Code NL849
Synonyms None

Details of the supplier of the safety data sheet
Company Name Nyco Products Company
5332 Dansher Road
Countryside, IL 60525
(708) 579-8100
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>Not classified</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>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Danger

Hazard statements
Causes skin irritation
Causes serious eye damage

Appearance Clear
Physical state Liquid
Odor Typical
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Specific Treatment (See Section 4 on the SDS)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Drink plenty of water
Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Disposal
Disposal should be in accordance with applicable regional, national and local laws and regulations

Hazards not otherwise classified (HNOC) Other Information
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>Monoethanolamine</td>
<td>141-43-5</td>
<td>1-5</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

Skin Contact
Wash off immediately with plenty of water. Wash off immediately with plenty of water for at least 15 minutes. Wash off immediately with soap and plenty of water. If skin irritation persists, see a physician.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Inhalation
Remove to fresh air.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

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
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media  Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No Information available.

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  Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions  Do not allow into any storm sewer drains, lakes, streams, ponds, estuaries, oceans or other surface water bodies. Should not be released into the environment. Dispose of according to all local city, state and federal rules and regulations.

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.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling  Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions  Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials  None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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>
<tbody>
<tr>
<td>Monoethanolamine</td>
<td>STEL: 6 ppm</td>
<td>TWA: 3 ppm</td>
<td>IDLH: 30 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 3 ppm</td>
<td>TWA: 6 mg/m³</td>
<td>TWA: 3 ppm</td>
</tr>
<tr>
<td></td>
<td>(vacated) TWA: 3 ppm</td>
<td>(vacated) TWA: 8 mg/m³</td>
<td>TWA: 15 mg/m³</td>
</tr>
<tr>
<td></td>
<td>(vacated) STEL: 6 ppm</td>
<td>(vacated) STEL: 15 mg/m³</td>
<td>TWA: 3 ppm</td>
</tr>
<tr>
<td></td>
<td>(vacated) STEL: 15 mg/m³</td>
<td></td>
<td>TWA: 15 mg/m³</td>
</tr>
</tbody>
</table>

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
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective gloves and protective clothing.

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
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Typical</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>10.5 - 11.5</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.023</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Water Thin</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-40 °C / -40 Degrees</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>Above 200°F</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt;= 100 °C / 212 °F (at 760 mm Hg)</td>
<td>Degrees</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No Information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No Information available</td>
<td></td>
</tr>
</tbody>
</table>

Other Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density Lbs/Gal</td>
<td>8.54</td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>60</td>
<td></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
Extremes of temperature and direct sunlight.

**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**

**Inhalation**
Avoid breathing vapors or mists. Inhalation of vapors in high concentration may cause irritation of respiratory system.

**Eye contact**
Avoid contact with eyes. Corrosive. Causes serious eye damage.

**Skin Contact**
Avoid contact with skin. Causes skin irritation.

**Ingestion**
Do not taste or swallow. May cause gastrointestinal irritation.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50 (mg/kg)</th>
<th>Dermal LD50 (mg/kg)</th>
<th>Inhalation LC50 (mL/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanolamine</td>
<td>1720 (Rat)</td>
<td>1000 (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**
No Information available.

**Reproductive toxicity**
No Information available.

**STOT - single exposure**
No Information available.

**STOT - repeated exposure**
No Information available.

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

**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)**: 10,371.00 mg/kg
- **ATEmix (dermal)**: 13,953.00 mg/kg
- **ATEmix (inhalation-dust/mist)**: 30.20 mg/kg

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
3% 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>Propylene Glycol</td>
<td>19000: 96 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51600: 96 h Oncorhynchus mykias mg/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50</td>
<td>1000: 48 h Daphnia magna mg/L EC50 Static 10000: 24 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>15: 72 h Desmodesmus subspicatus</td>
<td>227: 96 h Pimephales promelas</td>
<td>65: 48 h Daphnia magna mg/L</td>
</tr>
</tbody>
</table>
141-43-5 | mg/L EC50 | mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 300 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static | EC50

Diethanolamine 111-42-2 | 2.1 - 2.3: 96 h Pseudokirchneriella subcapitata mg/L EC50 7.8: 72 h Desmodesmus subspicatus mg/L EC50 | 4460 - 4980: 96 h Pimephales promelas mg/L LC50 flow-through 1200 - 1580: 96 h Pimephales promelas mg/L LC50 static 600 - 1000: 96 h Lepomis macrochirus mg/L LC50 static | 55: 48 h Daphnia magna mg/L EC50

Persistence and degradability
No Information available.

Bioaccumulation
Bioaccumulative potential.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>-1.91</td>
</tr>
</tbody>
</table>

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.

14. TRANSPORT INFORMATION

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

DOT

UN/ID No. | UN1760
Proper shipping name | Corrosive liquids, n.o.s.
Hazard Class | 8
Packing Group | III
Special Provisions | IB3, T7, TP1, TP28
Description | UN1760, Corrosive liquids, n.o.s (contains Ethanolamine), 8, III
Emergency Response Guide Number | 154

TDG

UN/ID No. | UN1760
Proper shipping name | Corrosive liquids, n.o.s.
Hazard Class | 8
Packing Group | III
Description | UN1760, Corrosive liquids, n.o.s (contains Ethanolamine), 8, III

15. REGULATORY INFORMATION

International Inventories
NL849 Clean Freeze Freezer Cleaner

Revision Date 21-Feb-2018

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard No
Chronic Health Hazard No
Fire hazard No
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
WARNING: This product contains a chemical known to the state of California to cause cancer.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethanolamine - 111-42-2</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

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>Propylene Glycol</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>57-55-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>141-43-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>111-42-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA Health hazards 2 Flammability 0 Instability 0 Physical and Chemical Properties -
HMIS Health hazards 2 Flammability 0 Physical hazards 0 Personal protection B

Issue Date 21-Feb-2018
Revision Date 21-Feb-2018
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