1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Name Chlorinated Automatic Dishwash

Other means of identification
Product Code NL305
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>Category</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 1 Sub-category A</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

Danger

Hazard statements
May be harmful if swallowed
Causes severe skin burns and eye damage

Appearance Clear
Physical state Liquid
Odor Mild Chlorine Bleach
Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Drink plenty of water
Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Storage
Store locked up

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

Hazards not otherwise classified (HNOC)
Other information
• Toxic to aquatic life with long lasting effects
• Toxic 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>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>7-13</td>
<td>*</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>7320-34-5</td>
<td>1-5</td>
<td>*</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</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

General advice
Immediate medical attention is required.

Skin Contact
Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. For minor skin contact, avoid spreading material on unaffected skin. For severe burns, immediate medical attention is required.

Eye contact
Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

Inhalation
Remove to fresh air. Call a physician or poison control center immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion
Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down. Clean mouth with water and drink afterwards plenty of water. Call a physician or poison
Control center immediately.

Self-protection of the first aider
Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. 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
The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

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
Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

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
Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Dam up. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not mix with acids.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep/store only in original container. Do not reuse container.

Incompatible materials


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>Potassium Hydroxide 1310-58-3</td>
<td>Ceiling: 2 mg/m³</td>
<td>(vacated) Ceiling: 2 mg/m³</td>
<td>Ceiling: 2 mg/m³</td>
</tr>
<tr>
<td>Sodium Hydroxide 1310-73-2</td>
<td>Ceiling: 2 mg/m³</td>
<td>TWA: 2 mg/m³</td>
<td>IDLH: 10 mg/m³</td>
</tr>
<tr>
<td>Tetraboron Pyrophosphate 7722-88-5</td>
<td>-</td>
<td>(vacated) TWA: 5 mg/m³</td>
<td>TWA: 5 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

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. 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

When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

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</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild Chlorine Bleach</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
Exposure to air or moisture over prolonged periods. Extremes of temperature and direct sunlight.

Incompatible materials

Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating and toxic gases and vapors. Hydrogen chloride. Phosgene.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
The primary effects and toxicity of this material are due to it corrosive nature.

Inhalation
Avoid breathing vapors or mists. Inhalation of vapors in high concentration may cause severe irritation or burns to the respiratory tract.

Eye contact
Avoid contact with eyes. Causes severe eye damage.

Skin Contact
The product causes burns of eyes, skin and mucous membranes.

Ingestion
May be harmful if swallowed. Ingestion causes acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus and stomach.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Hydroxide</td>
<td>( = 284 \text{ mg/kg} ) (Rat)</td>
<td>-</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

Corrosivity
Causes burns. Extremely corrosive and destructive to tissue. Risk of serious damage to eyes.

Sensitization
May cause sensitization by inhalation and skin contact.

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>Sodium Hypochlorite</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Reproductive toxicity
No Information available.

STOT - single exposure
No Information available.

STOT - repeated exposure
No Information available.

Chronic toxicity
 Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risk of irreversible effects.

Target organ effects
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) 4,118.00
ATEmix (dermal) 97,108.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

2.34% 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>Potassium Hydroxide</td>
<td>-</td>
<td>80: 96 h Gambusia affinis mg/L LC50 static</td>
<td>-</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</td>
<td>100: 96 h Oncorhynchus mykiss mg/L LC50</td>
<td>100: 48 h water flea mg/L EC50</td>
</tr>
<tr>
<td>Sodium Tripolyphosphate</td>
<td>7758-29-4</td>
<td>1650: 48 h Leuciscus idus mg/L LC50</td>
<td>-</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</td>
<td>0.095: 24 h Skeletonema costatum mg/L EC50</td>
<td>4.5 - 7.6: 96 h Pimephales promelas mg/L LC50 static 0.05 - 0.771: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.28 - 1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.03 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 0.18 - 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static 0.4 - 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.033 - 0.044: 48 h Daphnia magn a mg/L EC50 Static 2.1: 96 h Daphnia magna mg/L EC50</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>-</td>
<td>45.4: 96 h Oncorhynchus mykiss mg/L LC50 static</td>
</tr>
</tbody>
</table>
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>Potassium Hydroxide</td>
<td>0.65</td>
</tr>
<tr>
<td>1310-58-3</td>
<td>0.83</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.

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>Potassium Hydroxide</td>
<td>Toxic</td>
</tr>
<tr>
<td>1310-58-3</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

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          II
Special Provisions     B2, IB2, T11, TP2, TP27
Description            UN1760, Corrosive liquids, n.o.s. (contains Potassium Hydroxide and Sodium Hypochlorite), 8, II
Emergency Response Guide Number 154

TDG
UN/ID No.               UN1760
Proper shipping name   Corrosive liquids, n.o.s.
Hazard Class           8
Packing Group          II
Description            UN1760, Corrosive liquids, n.o.s. (contains Potassium Hydroxide and Sodium Hypochlorite), 8, II

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

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Hydroxide</td>
<td>1000 lb</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>100 lb</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Hydroxide</td>
<td>1000 lb</td>
<td>-</td>
<td>RQ 1000 lb final RQ</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td>RQ 454 kg final RQ</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>100 lb</td>
<td>-</td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product has been evaluated and does not require warning labeling under California Proposition 65.

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>Potassium Hydroxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1310-58-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7681-52-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1310-73-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium Pyrophosphate</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7722-88-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Trimetaphosphate</td>
<td>-</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7785-84-4</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: 3
- Flammability: 0
- Instability: 0
- Physical and Chemical Properties: -

HMIS
- Health hazards: 3
- Flammability: 0
- Physical hazards: 0
- Personal protection: D
Issue Date 19-Feb-2018
Revision Date 19-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