1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product Identity  General Purpose Detergent (Liquid Nonionic)
Alternate Names  Specification: MIL-D-16791G, Type I
LHB Part Number: 1064006, 1064007, 1064008
National Stock Number: 7930-00-282-9699, 7930-00-985-6911,
7930-00-282-9700,
CAGE Code: 1A864
Contract Number: GS-07F-R0002

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use  See Technical Data Sheet.
Application Method  See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet
Company Name  LHB Industries
8833 Fleischer Place
Berkeley, MO 63134

Emergency
24 hour Emergency Telephone No.  (800) 633-8253 (PERS)
Customer Service: LHB Industries  (314) 423-4333

2. Hazard identification of the product

2.1. Classification of the substance or mixture
Acute Tox. 4;H302  Harmful if swallowed.
Skin Irrit. 2;H315  Causes skin irritation.
Eye Irrit. 2;H319  Causes serious eye irritation.
Aquatic Chronic 2;H411  Toxic to aquatic life with long lasting effects.
2.2. Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

**Warning**

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

[Prevention]:
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.

[Response]:
P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P321 Specific treatment (see information on this label).
P330 Rinse mouth.
P337+313 If eye irritation persists: Get medical advice / attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

[Storage]:
No GHS storage statements

[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol polyethoxylate</td>
<td>100</td>
<td>Eye Dam. 2A;H319, Skin Irrit. 2;H315, Aquatic Chronic 2;H411, Acute Tox. 4;H302</td>
<td>[1][3]</td>
</tr>
<tr>
<td>CAS Number: 0009016-45-9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[1] Substance classified with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.
4. First aid measures

4.1. Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion
If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview
ROUTES OF EXPOSURE: Exposure may be by INGESTION, INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.
EFFECTS OF OVEREXPOSURE:
Eyes – May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.
Skin – Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness or swelling.
Inhalation – Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying or heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headaches, nausea, and drowsiness.
Ingestion – May cause abdominal discomfort, nausea, and diarrhea.
MEDICAL CONDITIONS AGRAVATED BY EXPOSURE: There is no evidence that this product aggravates an existing medical condition.
See section 2 for further details.

Eyes
Causes serious eye irritation.

Skin
Causes skin irritation.

Ingestion
Harmful if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media
Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use; water jet.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: Carbon Monoxide and Carbon Dioxide

5.3. Advice for fire-fighters
Water or foam may cause frothing
Use water spray to keep fire-exposed containers cool. If a spill has ignited, use water spray to disperse the vapors. Use a water spray to flush spills away from a fire and to dilute spills to non-flammable mixtures. Do not flush into a
Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity. Use self-contained breathing apparatus (SCBA) and proper personal protection clothing. There are no known unusual fire and explosion hazards associated with this material in its virgin form. However, in a firefighting scenario involving multiple chemicals, fire fighters should be aware of possible synergistic effects and attack the fire accordingly.

**6. Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures
Read entire label before using and follow all label directions.

6.2. Environmental precautions
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Wipe, scrape or soak up contents in an inert material. Pick up spill for recovery or disposal and place in a closed container.

**7. Handling and storage**

7.1. Precautions for safe handling
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Keep out of reach of children. Do not take internally. Do not consume food, drink or smoke while handling this product.
Keep from freezing. Avoid storage in high temperatures or near open flame. Store in dry cool place.
Incompatible materials: Oxidizing agents and acids.
See section 2 for further details. - [Storage]:

7.3. Specific end use(s)
No data available.

**8. Exposure controls and personal protection**

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0009016-45-9</td>
<td>Nonylphenol polyethoxylate</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

**Respiratory**
If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

**Eyes**
Wear safety glasses with side shields. Wear chemical goggles when possibility for splashing exists.

**Skin**
Wear overalls to keep skin contact to a minimum. Wear chemical resistant gloves to keep skin contact to a minimum.

**Engineering Controls**
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

**Other Work Practices**
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Colorless Liquid</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Slight</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Melting point / freezing point</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>237.8°C PMCC</td>
</tr>
<tr>
<td><strong>Evaporation rate (Ether = 1)</strong></td>
<td>Slower than ether</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td><strong>Lower Explosive Limit</strong>: Not determined</td>
</tr>
<tr>
<td><strong>Vapor pressure (Pa)</strong></td>
<td>&lt; 1 mmHg @20°C</td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>1.06 (8.84 lb/gal)</td>
</tr>
<tr>
<td><strong>Solubility in Water</strong></td>
<td>&gt;10%</td>
</tr>
<tr>
<td><strong>Partition coefficient n-octanol/water (Log Kow)</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not Measured</td>
</tr>
<tr>
<td><strong>Viscosity (cSt)</strong></td>
<td>Not Measured</td>
</tr>
</tbody>
</table>
VOC % <1% by wt. (ASTM D 2369)
< 0.09 lbs/gal

9.2. Other information
No other relevant information.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.

10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
No data available.

10.5. Incompatible materials
Oxidizing agents and acids.

10.6. Hazardous decomposition products
Carbon Monoxide and Carbon Dioxide

11. Toxicological information

Acute toxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LD50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LD50, mg/L/4hr</th>
<th>Inhalation Gas LD50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol polyethoxylate - (9016-45-9)</td>
<td>2,000.00, Rat - Category: 4</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>4</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>2</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>2</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
12. Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol polyethoxylate - (9016-45-9)</td>
<td>1.30, Lepomis macrochirus</td>
<td>4.80, Daphnia pulex</td>
<td>12.00 (96 hr), Pseudokirchneriella subcapitata</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.
14. Transport information

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not Applicable</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>DOT Hazard Class: Not Applicable</td>
<td>IMDG: Not Applicable</td>
</tr>
<tr>
<td></td>
<td>DOT Label: ---</td>
<td>Sub Class: Not Applicable</td>
</tr>
<tr>
<td></td>
<td>14.4. Packing group</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>14.5. Environmental hazards</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>IMDG</td>
<td>Marine Pollutant: Yes (Nonylphenol polyethoxylate)</td>
<td></td>
</tr>
<tr>
<td>14.6. Special precautions for user</td>
<td>No further information</td>
<td></td>
</tr>
</tbody>
</table>

15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification
D2B

US EPA Tier II Hazards
Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
Penn RTK Substances (>1%) :
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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