SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Chemical Name Mixture
Trade name NAXONAC® 8104
CAS No. 68921-24-4; Alt. 68130-47-2

Relevant identified uses of the substance or mixture and uses advised against
Identified use(s) Surfactant
Uses advised against None

Details of the supplier of the safety data sheet
Company Identification Nease Co. LLC
10740 Paddys Run Road
Harrison, OH 45030

Telephone (513) 738-1255
Telephone (Product Information) (888) 762-7373
Fax (513) 587-2828
E-Mail (competent person) techservice@neaseco.com

Emergency telephone number
Emergency Phone No. (513) 738-1255
CHEMTREC 24 hr. (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
OSHA HCS (29 CFR 1910.1200) Skin Corr. 1C; Eye Dam. 1; Met. Corr. 1

Label elements
Hazard Symbol

Signal word(s) DANGER

Hazard statement(s) Causes severe skin burns and eye damage. May be corrosive to metals.

Precautionary statement(s) Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation (redness, rash, blistering) develops, get medical attention.

Other hazards Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Additional Information None
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>Hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C6-12 Alkyl alcohol ethoxylate phosphoric acid</td>
<td>&gt;60 %</td>
<td>68921-24-4 (ALT: 68130-47-2)</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Alcohols, C6-C12, ethoxylated</td>
<td>3 - 7%</td>
<td>68439-45-2</td>
<td>Causes eye irritation. Causes skin irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>Orthophosphoric acid</td>
<td>&lt;5%</td>
<td>7664-38-2</td>
<td>May be corrosive to metals. Causes severe skin burns and eye damage.</td>
</tr>
</tbody>
</table>

Additional Information – Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.

- Ethylene Oxide (CAS No. 75-21-8) - May accumulate in the head space of drums

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation
Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is laboured, administer oxygen. If symptoms occur obtain medical attention.

Skin Contact
Wash affected skin with plenty of water. Remove contaminated clothing immediately. If irritation (redness, rash, blistering) develops, get medical attention.

Eye Contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Ingestion
If ingested, rinse mouth. Do not induce vomiting. Seek medical treatment.

Most important symptoms and effects, both acute and delayed
None

Indication of any immediate medical attention and special treatment needed
None

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

-Suitable Extinguishing Media
Extinguish with waterspray, dry chemical, sand or carbon dioxide. Water spray should be used to cool containers.

-Unsuitable Extinguishing Media
None anticipated.

Special hazards arising from the substance or mixture
None anticipated.

Advice for fire-fighters
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Avoid inhalation of vapours.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Put on protective equipment before entering danger area.

Environmental precautions
Do not allow to enter drains, sewers or watercourses.
Methods and material for containment and cleaning up
Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery. Wash the spillage area with water. Prevent liquid entering sewers, basements and any watercourses.

Reference to other sections
None

Additional Information
None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Empty containers may contain residues. Do not use metal containers for storage as the phosphoric acid will react with the metal to liberate flammable hydrogen gas. Do not get in eyes, on skin, or on clothing. This product may contain trace levels of Ethylene oxide (CAS No. 75-21-8), which may accumulate in the head space of containers. Establish monitoring systems for exposure assessment to comply with OSHA standard 29 CFR 1910.1047.

Conditions for safe storage, including any incompatibilities
- Storage Temperature
  Do not freeze. This product should be stored at a temperature greater than: 20°C (68°F).
- Incompatible materials
  Attacks many materials and clothing. Keep away from oxidising agents. Keep container tightly closed and dry.

Specific end use(s)
Surfactant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>CAS No.</th>
<th>LTEL (8 hr TWA ppm)</th>
<th>STEL (ppm)</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>1 mg/m³</td>
<td>3 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ethylene Oxide*</td>
<td>75-21-8</td>
<td>1 ppm</td>
<td>5 ppm</td>
<td>-----</td>
</tr>
</tbody>
</table>

* May accumulate in the headspace of drums. OSHA Action Level = 0.5 ppm as an 8-hour time-weighted average. Refer to OSHA 29 CFR 1910.1047.

Recommended monitoring method
NIOSH 7908 (Non-Volatile Acids); NIOSH 1614

Exposure controls
Local exhaust required.

Personal protection equipment

Eye/face protection
The following to be used as necessary: Goggles giving complete protection to eyes. Full face shield.

Skin protection (Hand protection/ Other)
The following to be used as necessary: Gloves (Neoprene or Natural rubber). Chemical protection suit. Wear safety or chemical resistant shoes or boots. Check with protective equipment manufacturer's data.

Respiratory protection
No personal respiratory protective equipment normally required.

Thermal hazards
Use gloves with insulation for thermal protection, when needed.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Viscous liquid.
Colour: Clear / Yellow
Odour: Mild
Odour Threshold (ppm): Not available.

pH (Value): < 2 (10% in Water)
Melting Point (°C) / Freezing Point (°C): Not available.
Boiling point / boiling range (°C): Not available.
Flash Point (°C): >93.8 (201 °F)
Evaporation rate: <1

Flammability (solid, gas): Not applicable.
Explosive limit ranges: Not available.
Vapour Pressure (Pascal): Not available.
Vapour Density (Air=1): Not available.
Density (g/ml) @ 20°C: ≈1.03

Solubility (Water): Soluble.
Solubility (Other): Not available.
Partition Coefficient (n-Octanol/water): Not available.
Auto Ignition Temperature (°C): Not available.
Decomposition Temperature (°C): Not available.
Kinematic Viscosity (cSt) @ 40°C: Not available.

Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

Other information: Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable under normal conditions.
Chemical stability: Stable.
Possibility of hazardous reactions: None anticipated.
Conditions to avoid: Incompatible materials.
Incompatible materials: Strong oxidizers and strong bases.
Hazardous Decomposition Product(s): Carbon monoxide, carbon dioxide, phosphorous compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Substances in preparations / mixtures

Polyoxyethylene monooleyl ether phosphate (CAS No. 68921-24-4 (ALT: 68130-47-2) - By analogy with similar materials:

Acute toxicity: Oral: LD50 > 2500 mg/kg-bw
Irritation/Corrosivity: Causes serious eye damage. Causes skin irritation.
Sensitization: No information available
Repeated dose toxicity: No information available
Carcinogenicity: No information available

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
</table>

Mutagenicity: No information available
Toxicity for reproduction: No information available

Alcohols, C6-C12, ethoxylated (CAS No. 68439-45-2) - By analogy with similar materials:

Acute toxicity: Oral: LD50 > 2500 mg/kg
Dermal: LD50 > 1,000 mg/kg
Irritation/Corrosivity: Causes eye irritation. Causes skin irritation.
Sensitization: No information available
Repeated dose toxicity  
No information available

Carcinogenicity  
No information available

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
</table>

Mutagenicity  
No information available

Toxicity for reproduction  
No information available

Orthophosphoric acid (CAS No. 7664-38-2)

Acute toxicity  
Oral: LD50 = 2600 mg/kg-bw  
Inhalation: LC50 (1 hour) = 3846 mg/m³ (rabbit; mice; guinea pigs)

Irritation/Corrosivity  
Corrosive (Skin and Eyes)

Sensitization  
Not available.

Repeated dose toxicity  
NOAEL (42-54 days) <250 mg/kg (rat)

Carcinogenicity  
No information available

<table>
<thead>
<tr>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>NIOSH</th>
</tr>
</thead>
</table>

Mutagenicity  
There is no evidence of mutagenic potential.

Toxicity for reproduction  
NOAEL = 500 mg/kg (rat)

This product may contain trace levels of Ethylene oxide (CAS No. 75-21-8), which may accumulate in the head space of containers. Establish monitoring systems for exposure assessment to comply with OSHA standard 29 CFR 1910.1047. Ethylene oxide is a known human carcinogen by NTP and a suspected human carcinogen by ACGIH®.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity - Substances in preparations / mixtures

C6-12 Alkyl alcohol ethoxylate phosphoric acid (CAS No. 68921-24-4 (ALT: 68130-47-2):

- Short term  
No data

- Long Term  
No data.

- Persistence and degradability  
No data

- Bioaccumulative potential  
No data.

- Mobility in soil  
Not determined

- Results of PBT and vPvB assessment  
Not available.

- Other adverse effects  
None known.

Alcohols, C6-C12, ethoxylated (CAS No. 68439-45-2) - By analogy with similar materials:

- Short term  
LC50 (96 hour) = 9.4 mg/l (Pimephales promelas)  
LC50 (48 hour) =14.4 mg/l (Daphnia magna)

- Long Term  
No data.

- Persistence and degradability  
Readily biodegradable.

- Bioaccumulative potential  
No data.

- Mobility in soil  
Not determined

- Results of PBT and vPvB assessment  
Not available.

- Other adverse effects  
None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods  
Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

Additional Information  
None known.
SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>UN number</th>
<th>Land transport (U.S. DOT)</th>
<th>Sea transport (IMDG)</th>
<th>Air transport (ICAO/IATA)</th>
</tr>
</thead>
</table>

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not established.

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.
Canada Domestic Substance List (DSL) - Listed

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
<th>RQ (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthophosphoric acid</td>
<td>7664-38-2</td>
<td>&lt;5%</td>
<td>5000</td>
</tr>
</tbody>
</table>

SARA 311/312 - Hazard Categories:
- [ ] Fire
- [ ] Sudden Release
- [ ] Reactivity
- [x] Immediate (acute)
- [ ] Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>------</td>
<td>---</td>
</tr>
</tbody>
</table>

SARA 302 - Extremely Hazardous Substances (40 CFR 355):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Typical %wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>------</td>
<td>---</td>
</tr>
</tbody>
</table>

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: December 26, 2014

Additional Information:

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Nease Co. LLC gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Nease Co. LLC accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.