1. Identification of substance / mixture

1. Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Detergent Solution (15% Detergent Solution)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Code</td>
<td>WS0057</td>
</tr>
<tr>
<td>CAS Number</td>
<td>9016-45-9</td>
</tr>
<tr>
<td>Other Names</td>
<td>NP-40 substitute; Nonidet® P 40 Substitute; 4-Nonyl phenyl-polyethylene glycol; Imbetin-N-52; Ethoxylated nonylphenol</td>
</tr>
<tr>
<td>IUPAC</td>
<td>NA</td>
</tr>
<tr>
<td>MFCD Number</td>
<td>NA</td>
</tr>
<tr>
<td>EC/EINECS</td>
<td>500-024-6</td>
</tr>
<tr>
<td>REACH Number</td>
<td>NA</td>
</tr>
</tbody>
</table>

2. Relevant identified uses of the substance or mixture and uses advised against

Research and Development

3. Details of the supplier of the safety data sheet

ProZyme, Inc
3832 Bay Center Place,
Hayward
CA 94545-3619
USA
Telephone: +1 (510) 638-6900
Fax: +1 (510) 638 6919
Email: info@prozyme.com

4. Emergency telephone number

+1 (760) 476 3961

2. Hazards Identification

1. Classification of the substance or mixture

<table>
<thead>
<tr>
<th>Hazard Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H303</td>
<td>Acute Tox. 5</td>
</tr>
<tr>
<td>H320</td>
<td>Eye Irrit. 2B</td>
</tr>
<tr>
<td>H335</td>
<td>STOT SE 3a</td>
</tr>
<tr>
<td></td>
<td>R37, R36/37, R36/37/38, R37/38</td>
</tr>
</tbody>
</table>

2. Label elements

Signal Word **Warning**

Hazard Statements

- H303: Maybe harmful if swallowed
- H320: Causes eye irritation
- H335: May cause respiratory irritation.

Precautionary Phrases

Non Hazardous

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

No Resource File

2. Mixtures

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Product Name</th>
<th>CAS Number</th>
<th>EC/EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>NP-40 Substitute</td>
<td>9016-45-9</td>
<td>500-024-6</td>
</tr>
</tbody>
</table>

4. First Aid Measures
1. Description of first aid measures

<table>
<thead>
<tr>
<th>Skin Contact</th>
<th>Rinse with plenty of soap and water. If symptoms arise, call a physician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Contact</td>
<td>If symptoms arise, call a physician</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Wash out mouth with water. Never give anything by mouth to an unconscious person. If symptoms arise, call a physician. Do not induce vomiting without medical advice.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Move to fresh air. If symptoms arise, call a physician. If not breathing, give artificial respiration.</td>
</tr>
</tbody>
</table>

2. Most important symptoms and effects

Nausea, headache, vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

3. Indication of any immediate medical attention

Obtain medical attention in the event of any acute or delayed symptoms.

5. Firefighting measures

1. Extinguishing Media

<table>
<thead>
<tr>
<th>Suitable</th>
<th>Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable</td>
<td>NA</td>
</tr>
</tbody>
</table>

2. Special Hazards arising from the substance or mixture

The nature of the decomposition products for this product are not known.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus for fire fighting if necessary.

6. Accidental Release Measures

1. Personal Precautions

Refer to section 8 of SDS for personal protection details. Do not inhale or ingest. Ensure adequate ventilation.

2. Environmental Precautions

Prevent further leakage or spillage. Do not discharge into drains or rivers. Discharge into the environment must be avoided.

3. Methods & Materials

Absorb small spills with appropriate absorbent material. Place in suitable container and hold for disposal as hazardous waste. Wash spill site after material has been removed.

4. Preventing the occurrence of secondary hazards.

No data available.

7. Handling and Storage

1. Personal Precautions

Safe Handling: Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Handle in accordance with all current regulations and standards.

Protection against explosions and fires: NA

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks: Store in cool place. Keep tubes tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage Controls: Store at 2-8°C or -20°C.

Maintaining Integrity: Store according to instructions in product labeling.

Other advice: NA

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available
### 2. Exposure Controls

**General protective and hygiene measures**
Wear appropriate protective clothing (safety glasses, gloves, laboratory coat). Handle and store in accordance with all current regulations and standards.

**Engineering measures**
Ensure adequate ventilation.

**Eye / Face Protection**
Safety Glasses with side-shields. Use eye protection that was tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

**Hand protection**
Protective gloves.

**Respiratory protection**
P261: Avoid breathing dust/fume/gas/mist/vapours/spray. Respiratory protection not required under normal handling conditions.

**Skin protection**
Wear appropriate protective clothing (safety glasses, gloves, laboratory coat).

**Other personal protection advice**
NA

### 9. Physical and Chemical Properties

#### 1. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No Data Available</td>
</tr>
<tr>
<td>PH</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Melting point / Freezing point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Solubility (ies)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

**1. Reactivity**
No data available.

**2. Stability**
No data available.

**3. Possibility of Hazardous Reactions**
No data available.

**4. Conditions to Avoid**
No data available.

**5. Incompatible Materials**
Strong oxidizing agents.

**6. Hazardous Decomposition Products**
No data available.

### 11. Toxicology information
1. Information

Acute Toxicity: No data available.
Skin corrosion/irritation: May cause skin irritation.
Serious eye damage/irritation: May cause eye irritation.
Respiratory or skin sensitisation: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Germ Cell mutagenicity: No data available.
Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity: No data available.
STOT-single exposure: No data available.
STOT-repeated exposure: No data available.
Aspiration hazard: May be harmful if inhaled.

2. Additional

To the best of our knowledge, the toxicological, carcinogenic and mutagenic properties have not been thoroughly investigated.

12. Ecological Information

1. Toxicity
100% solution is toxic to aquatic life.

2. Persistence and degradability
Readily biodegradable.

3. Bio-Accumulative Potential
Does not bioaccumulate.

4. Mobility and Soil
No data available.

5. Results of PBT & vPvB assessment
No data available.

6. Other adverse effects
No data available.

13. Disposal Considerations

1. Waste Treatment Methods
Disposal Operations: Do not allow product to reach sewage system. Dispose of according to current regulations and standards.
Disposal of Packaging: Dispose of as unused product.

14. Transport Information

Air (ICAO)

1. UN Number:
2. Shipping Name: None Hazardous
3. Transport hazard class(es): Sub Class:

4. Packing group:
5. Environmental hazards:
6. Special Precautions for user:
7. Transport in bulk:

Road (ADR)

1. UN Number:
2. Shipping Name: None Hazardous
15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:
   No data available.

2. Safety Assessment
   No Chemical Safety Assessment

16. Other Information

1. Other Information:
   ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by road)
   RID: Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
   IMDG: International Maritime Code for Dangerous Goods
   IATA: International Air Transport Association
   IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
   ICAO: International Civil Aviation Organization
   ICAO-TI: Technical Instructions by the ICAO
   GHS: Globally Harmonized System of Classification and Labelling of Chemicals
   CAS: Chemical Abstracts Service

2. Associated risk phrases according to European Directive 67/548/EEC

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R36/37</td>
<td>Irritating to eyes and respiratory system.</td>
</tr>
<tr>
<td>R36/37/38</td>
<td>Irritating to eyes, respiratory system and skin.</td>
</tr>
<tr>
<td>R37</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>R37/38</td>
<td>Irritating to respiratory system and skin.</td>
</tr>
</tbody>
</table>

3. Disclaimer
The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.

The above information is supplied in good faith and is believed to be correct. It does not claim to be all-inclusive and is intended to be used only as a guide. Final determination of the suitability of any material is the sole responsibility of the user. ProZyme shall not be held responsible for any damage resulting from handling or contact with the above product. This product is intended for \textit{in vitro} research only.

4. Trademarks

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