SAFETY DATA SHEET
Better Natured Permanent Liqui-Crème Haircolor - All Shades

Section 1. Identification

Product Name: Better Natured Permanent Liqui-Crème Haircolor - All Shades
Other means of identification: Not available.
Recommended use: Hair Care Product
Restrictions on use: Use only as directed on the product label.
Manufacturer: Zotos International, INC
100 Tokeneke Road,
Darien, CT 06820
www.zotos.com

Validation date: 11/21/2019
In case of emergency: (800) 584-8038 [24 Hours]
Telephone number: (203) 656-7859 [8:30 a.m. - 5:00 p.m.]
Transportation Emergency: Contact: CHEMTREC 1-800-424-9300 [US/Canada 24 Hours]
Product type: Liquid.

Section 2. Hazards identification

Emergency overview
NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture: EYE IRRITATION - Category 2A

GHS label elements
Hazard pictograms:

Signal word: Warning
Hazard statements: Causes serious eye irritation.
Precautionary statements
General: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention: Wear eye or face protection. Wash hands thoroughly after handling.
Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage: Not applicable.
Disposal: Not applicable.
Section 2. Hazards identification

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>octadecan-1-ol</td>
<td>6.50</td>
<td>112-92-5</td>
</tr>
<tr>
<td>p-phenylenediamine</td>
<td>2.00</td>
<td>106-50-3</td>
</tr>
<tr>
<td>(Z)-octadec-9-enol</td>
<td>2.00</td>
<td>143-28-2</td>
</tr>
<tr>
<td>ammonia</td>
<td>1.96</td>
<td>1336-21-6</td>
</tr>
<tr>
<td>resorcinol</td>
<td>1.80</td>
<td>108-46-3</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

**Description of necessary first aid measures**

**Eye contact**

Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention immediately.

**Inhalation**

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Ensure sufficient ventilation during and after use, in order to prevent vapour accumulation. Seek immediate medical attention.

**Skin contact**

Wash the contaminated skin gently and thoroughly with running water and non-abrasive soap. If on clothes, remove clothes. Get medical attention if adverse health effects persist or are severe.

**Ingestion**

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. Maintain an open airway.

**Indication of immediate medical attention and special treatment needed, if necessary**

- **Notes to physician** : Treat symptomatically.
- **Specific treatments** : No specific treatment.
- **Protection of first-aiders** : Use suitable protective equipment (section 8).

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

- **Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- **Unsuitable extinguishing media** : None known.
### Section 5. Fire-fighting measures

**Specific hazards arising from the chemical**
- In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**
- Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide
  - Nitrogen oxides
  - Sulfur oxides

**Special protective actions for fire-fighters**
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**
- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**
- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up**

**Small spill**
- Stop leak if without risk. Dilute with water and mop up if water-soluble.

**Large spill**
- Stop leak if without risk. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures**
- Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist.

**Advice on general occupational hygiene**
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities**
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.

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### Section 8. Exposure controls/personal protection

#### United States

**Control parameters**

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-phenylenediamine</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 0.1 mg/m³ 8 hours. OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 0.1 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 0.1 mg/m³ 10 hours. OSHA PEL (United States, 6/2016). Absorbed through skin. TWA: 0.1 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>resorcinol</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 10 ppm 8 hours. TWA: 45 mg/m³ 8 hours. STEL: 20 ppm 15 minutes. STEL: 90 mg/m³ 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 10 ppm 8 hours. TWA: 45 mg/m³ 8 hours. STEL: 20 ppm 15 minutes. STEL: 90 mg/m³ 15 minutes. NIOSH REL (United States, 10/2016). TWA: 10 ppm 10 hours. TWA: 45 mg/m³ 10 hours. STEL: 20 ppm 15 minutes. STEL: 90 mg/m³ 15 minutes.</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

- Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls**

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

- **Hygiene measures**: When using do not eat, drink or smoke.

- **Eye/face protection**: None.

- **Skin protection**
  - **Hand protection**: Wear suitable gloves.
  - **Body protection**: Not available.
  - **Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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Section 8. Exposure controls/personal protection

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

Appearance
Physical state: Liquid.
Odor: Ammoniacal.
\( pH \): 9.5 to 10.5
Relative density: 0.985 to 1.05

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data.

Incompatible materials: No specific data.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

United States
Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>octadecan-1-ol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>p-phenylenediamine</td>
<td>LC50 Inhalation Dusts and mists</td>
<td>Rat</td>
<td>920 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>80 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>ammonia</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>350 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>resorcinol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3360 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>202 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

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# Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>octadecan-1-ol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Man</td>
<td>-</td>
<td>48 hours 30 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Dog</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Guinea pig</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Mouse</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Pig</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 12500 Micrograms</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Man</td>
<td>-</td>
<td>1 Percent</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Guinea pig</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>72 hours 75 milligrams</td>
<td>Intermittent</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rat</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>250</td>
<td>-</td>
</tr>
<tr>
<td>ammonia</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.5 minutes 1 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>resorcinol</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 20 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitization**
Not available.

**Mutagenicity**
Not available.

**Carcinogenicity**
Not available.

**Classification**

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# Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-phenylenediamine resorcinol</td>
<td></td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**
Not available.

**Teratogenicity**
Not available.

**Specific target organ toxicity (single exposure)**
Not available.

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

**Information on the likely routes of exposure**
Not available.

**Potential acute health effects**

- **Eye contact**: Causes serious eye irritation.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

- **Eye contact**: Adverse symptoms may include the following: pain or irritation, watering, redness.
- **Inhalation**: No specific data.
- **Skin contact**: No specific data.
- **Ingestion**: No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Long term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Potential chronic health effects**
Not available.

- **General**: No known significant effects or critical hazards.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
Section 11. Toxicological information

Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2048.9 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>127334.7 mg/kg</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>31.47 mg/l</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**United States**

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>ammonia resorcinol</td>
<td>Acute LC50 37 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 78000 µg/l Marine water</td>
<td>Crustaceans - Palaemonetes pugio</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;100000 µg/l Fresh water</td>
<td>Daphnia - Daphnia pulicaria</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 40 mg/l Fresh water</td>
<td>Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

Not available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>octadecan-1-ol</td>
<td>7.4</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>p-phenylenediamine</td>
<td>-0.839</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>(Z)-octadec-9-enol</td>
<td>7.07</td>
<td>-</td>
<td>high</td>
</tr>
<tr>
<td>resorcinol</td>
<td>0.8</td>
<td>3.16</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K<sub>OC</sub>): Not available.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

**United States - RCRA Toxic hazardous waste "U" List**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resorcinol; 1,3-Benzenediol</td>
<td>108-46-3</td>
<td>Listed</td>
<td>U201</td>
</tr>
</tbody>
</table>
Section 14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>TDG Classification</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Mexico Classification</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>ADR/RID Class</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>IMDG Class</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>IATA-DGR Class</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

PG* : Packing group

Section 15. Regulatory information

U.S. Federal regulations

- Clean Air Act (CAA) 112 regulated toxic substances: ammonia, anhydrous
- TSCA 8(a) PAIR: 1-naphtol
- TSCA 8(a) CDR Exempt/Partial exemption: Not determined
- United States inventory (TSCA 8b): Not determined.
- Clean Water Act (CWA) 311: ammonia, anhydrous; resorcinol

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs):
- Listed

Clean Air Act Section 602 Class I Substances:
- Not listed

Clean Air Act Section 602 Class II Substances:
- Not listed

DEA List I Chemicals (Precursor Chemicals):
- Not listed

DEA List II Chemicals (Essential Chemicals):
- Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ:
- Not applicable.

SARA 311/312

Classification:
- Immediate (acute) health hazard

Composition/information on ingredients

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# Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-phenylenediamine</td>
<td>2.00</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>(Z)-octadec-9-enol</td>
<td>2.00</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>ammonia</td>
<td>1.96</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>resorcinol</td>
<td>1.80</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
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</table>

**SARA 313**

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>p-phenylenediamine</th>
<th>CAS number</th>
<th>%</th>
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<tr>
<td>ammonia</td>
<td>106-50-3</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1336-21-6</td>
<td>1.96</td>
<td></td>
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</tbody>
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<table>
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<th>Supplier notification</th>
<th>p-phenylenediamine</th>
<th>CAS number</th>
<th>%</th>
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<tr>
<td>ammonia</td>
<td>106-50-3</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1336-21-6</td>
<td>1.96</td>
<td></td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

- **Massachusetts**: The following components are listed: AMMONIA; AMMONIA, ANHYDROUS; P-PHENYLENE DIAMINE; RESORCINOL; 1,3-BENZENEDIOL
- **New York**: The following components are listed: Ammonia; p-Phenylenediamine; Resorcinol
- **New Jersey**: The following components are listed: AMMONIA; p-PHENYLENEDIAMINE; 1,4-BENZENEDIAMINE; RESORCINOL; 1,3-BENZENEDIOL
- **Pennsylvania**: The following components are listed: AMMONIA; 1,4-BENZENEDIAMINE; 1,3-BENZENEDIOL

**California Prop. 65**

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product is not known to the State of California to cause cancer.

Not available.

**International regulations**

- **Chemical Weapon Convention List Schedules I, II & III Chemicals**
  Not listed.
- **Montreal Protocol (Annexes A, B, C, E)**
  Not listed.
- **Stockholm Convention on Persistent Organic Pollutants**
  Not listed.
- **Rotterdam Convention on Prior Informed Consent (PIC)**
  Not listed.
- **UNECE Aarhus Protocol on POPs and Heavy Metals**
  Not listed.

**Canada**

- **WHMIS (Canada)**: Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class E: Corrosive material

**Canadian lists**

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**Date of previous issue**: 10/18/2019  
**Version**: 2
Section 15. Regulatory information

**Canadian NPRI** : The following components are listed: Ammonia (total); p-Phenylenediamine (and its salts)

**CEPA Toxic substances** : The following components are listed: Gaseous Ammonia

**Canada inventory** : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Mexico**

**Classification** :

![Special Reactivity Flammability Health]

Mexico inventory:

Not determined.

The following components are listed: Gaseous Ammonia

Section 16. Other information

**Hazardous Material Information System (U.S.A.)**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

**National Fire Protection Association (U.S.A.)**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**History**

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<thead>
<tr>
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</tr>
</tbody>
</table>

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Section 16. Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.