SAFETY DATA SHEET
Compensated Epon - No hardener, Part Number G7426-85001

Section 1. Identification

1.1 Product identifier
Product name : Compensated Epon - No hardener, Part Number G7426-85001
Part No. (Chemical Kit) : G7426-85001
Part No. : EPON resin 828 8829971600
           Resolve- AL HO 8830150900
Validation date : 8/29/2014.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : Analytical chemistry.
               1 Container
               EPON resin 828
               Resolve- AL HO 1 g x Tube

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
                        Logistics Center - Americas
                        500 Ships Landing Way
                        New Castle, Delaware  19720
                        800-227-9770

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : EPON resin 828
                   Resolve- AL HO
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture
EPON resin 828

H315   SKIN CORROSION/IRRITATION - Category 2
H319   SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
H317   SKIN SENSITIZATION - Category 1
H335   SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

2.2 GHS label elements
### Section 2. Hazards identification

#### Hazard pictograms

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td>Warning</td>
</tr>
</tbody>
</table>

#### Signal word

- **EPON resin 828**
  - **Warning**: No signal word.

#### Hazard statements

- **EPON resin 828**
  - **H319**: Causes serious eye irritation.
  - **H315**: Causes skin irritation.
  - **H317**: May cause an allergic skin reaction.
  - **H335**: May cause respiratory irritation.

- **No known significant effects or critical hazards.**

#### Precautionary statements

**Prevention**

- **EPON resin 828**
  - **P280**: Wear protective gloves. Wear eye or face protection.
  - **P271**: Use only outdoors or in a well-ventilated area.
  - **P261**: Avoid breathing vapor.
  - **P264**: Wash hands thoroughly after handling.
  - **P272**: Contaminated work clothing should not be allowed out of the workplace.

- **Not applicable.**

**Response**

- **EPON resin 828**
  - **P304 + P340 + P312**: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
  - **P302 + P352 + P362-2 + P363**: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.
  - **P333 + P313**: IF skin irritation or rash occurs: Get medical attention.
  - **P305 + P351 + P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - **P337 + P313**: IF eye irritation persists: Get medical attention.

- **Not applicable.**

**Storage**

- **EPON resin 828**
  - **P405**: Store locked up.

- **Not applicable.**

**Disposal**

- **EPON resin 828**
  - **P501**: Dispose of contents and container in accordance with all local, regional, national and international regulations.

- **Not applicable.**

**Supplemental label elements**

- **EPON resin 828**
  - **None known.**

- **Not known.**

### 2.3 Other hazards

**Hazards not otherwise classified**

- **EPON resin 828**
  - **None known.**

- **None known.**

### Date of issue: 08/29/2014
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>EPON resin 828</th>
<th>Substance</th>
<th>Resolve- AL HO</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient name</td>
<td></td>
<td>%</td>
<td>CAS number</td>
<td></td>
</tr>
<tr>
<td>EPON resin 828</td>
<td></td>
<td>60 - 100</td>
<td>25068-38-6</td>
<td></td>
</tr>
<tr>
<td>Reaction product: Bisphenol-A-(Epichlorhydrin); epoxy resin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resolve- AL HO</td>
<td></td>
<td>60 - 100</td>
<td>15522-73-3</td>
<td></td>
</tr>
<tr>
<td>Holmium tris(2,2,6,6-tetramethyl-3,5-heptanedionate)</td>
<td></td>
<td></td>
<td></td>
<td></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

4.1 Description of necessary first aid measures

**Eye contact**
- EPON resin 828
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Resolve- AL HO
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**
- EPON resin 828
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Resolve- AL HO
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Skin contact**
- EPON resin 828
  - Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Resolve- AL HO
  - Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention.
Section 4. First aid measures

Ingestion: EPON resin 828

Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Resolve- AL HO

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. Get medical attention if symptoms occur.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: EPON resin 828

Causes serious eye irritation.

No known significant effects or critical hazards.

Resolve- AL HO

Inhalation: EPON resin 828

May cause respiratory irritation.

No known significant effects or critical hazards.

Resolve- AL HO

Skin contact: EPON resin 828

Causes skin irritation. May cause an allergic skin reaction.

No known significant effects or critical hazards.

Resolve- AL HO

Ingestion: EPON resin 828

Irritating to mouth, throat and stomach.

No known significant effects or critical hazards.

Resolve- AL HO

Over-exposure signs/symptoms

Eye contact: EPON resin 828

Adverse symptoms may include the following: pain or irritation watering redness

No specific data.

Resolve- AL HO

Inhalation: EPON resin 828

Adverse symptoms may include the following: respiratory tract irritation coughing

No specific data.

Resolve- AL HO

Skin contact: EPON resin 828

Adverse symptoms may include the following: irritation redness

No specific data.

Resolve- AL HO

Ingestion: EPON resin 828

No specific data.

Resolve- AL HO

No specific data.

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

Date of issue: 08/29/2014
**Section 4. First aid measures**

**Notes to physician**: EPON resin 828

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Resolve- AL HO

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**: EPON resin 828

No specific treatment.

Resolve- AL HO

No specific treatment.

**Protection of first-aiders**: EPON resin 828

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Resolve- AL HO

No action shall be taken involving any personal risk or without suitable training.

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**Section 5. Fire-fighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**: EPON resin 828

Use an extinguishing agent suitable for the surrounding fire.

Resolve- AL HO

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**: EPON resin 828

None known.

Resolve- AL HO

None known.

**5.2 Special hazards arising from the substance or mixture**

**Specific hazards arising from the chemical**: EPON resin 828

In a fire or if heated, a pressure increase will occur and the container may burst.

Resolve- AL HO

No specific fire or explosion hazard.

**Hazardous thermal decomposition products**: Decomposition products may include the following materials:

- carbon dioxide
- carbon monoxide
- halogenated compounds

**5.3 Advice for firefighters**

**Special protective actions for fire-fighters**: EPON resin 828

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.

Resolve- AL HO

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.
Section 5. Fire-fighting measures

Special protective equipment for fire-fighters

EPON resin 828

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

Resolve- AL HO

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

6.1 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 specialised 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".

6.2 Environmental precautions

EPON resin 828

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).

Resolve- AL HO

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).

6.3 Methods and materials for containment and cleaning up

EPON resin 828

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Resolve- AL HO

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures

EPON resin 828

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Section 7. Handling and storage

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

7.2 Conditions for safe storage, including any incompatibilities
EPON resin 828
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. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Resolve- AL HO
Put on appropriate personal protective equipment (see Section 8).

7.3 Specific end use(s)
Recommendations
EPON resin 828
Industrial applications, Professional applications.

Resolve- AL HO
Industrial applications, Professional applications.

Industrial sector specific solutions
Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limits
None.

8.2 Exposure controls
Appropriate engineering controls
Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.
Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance


Odor: EPON resin 828 Not available. Resolve- AL HO Not available.

Odor threshold: EPON resin 828 Not available. Resolve- AL HO Not available.

pH: EPON resin 828 Not available. Resolve- AL HO Not available.

Melting point: EPON resin 828 Not available. Resolve- AL HO 175 to 180°C (347 to 356°F)

Boiling point: EPON resin 828 >260°C (>500°F) Resolve- AL HO Not available.

Flash point: EPON resin 828 Closed cup: 248.89°C (480°F) [Pensky-Martens.] Open cup: 249°C (480.2°F) Resolve- AL HO Not available.

Evaporation rate: EPON resin 828 Not available. Resolve- AL HO Not available.
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt;0.013 kPa (&lt;0.1 mm Hg) [room temperature]</td>
</tr>
<tr>
<td></td>
<td>&lt;0.004 kPa (&lt;0.03 mm Hg) [50°C]</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td>Vapor density</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td>Relative density</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>1.17</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Insoluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>Insoluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
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<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>290°C (554°F)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
</tbody>
</table>

## Section 10. Stability and reactivity

### 10.1 Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
</tbody>
</table>

### 10.2 Chemical stability

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>The product is stable.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>The product is stable.</td>
</tr>
</tbody>
</table>

### 10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>

### 10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>No specific data.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

### 10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EPON resin 828</td>
</tr>
<tr>
<td></td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td></td>
<td>Resolve- AL HO</td>
</tr>
<tr>
<td></td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

**Date of issue:** 08/29/2014
Section 11. Toxicological information

11.1 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>EPON resin 828</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>11.4 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<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>EPON resin 828</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 20 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 microliters</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 2 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPON resin 828</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact: EPON resin 828
Resolve- AL HO
Causes serious eye irritation.
No known significant effects or critical hazards.

Date of issue: 08/29/2014
Section 11. Toxicological information

Inhalation: EPON resin 828  
May cause respiratory irritation.  
Resolve- AL HO  
No known significant effects or critical hazards.

Skin contact: EPON resin 828  
Causes skin irritation. May cause an allergic skin reaction.  
Resolve- AL HO  
No known significant effects or critical hazards.

Ingestion: EPON resin 828  
Irritating to mouth, throat and stomach.  
Resolve- AL HO  
No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: EPON resin 828  
Adverse symptoms may include the following: pain or irritation, watering, redness.  
Resolve- AL HO  
No specific data.

Inhalation: EPON resin 828  
Adverse symptoms may include the following: respiratory tract irritation, coughing.  
Resolve- AL HO  
No specific data.

Skin contact: EPON resin 828  
Adverse symptoms may include the following: irritation, redness.  
Resolve- AL HO  
No specific data.

Ingestion: EPON resin 828  
No specific data.  
Resolve- AL HO  
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: EPON resin 828  
Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
Resolve- AL HO  
No known significant effects or critical hazards.

Carcinogenicity: EPON resin 828  
No known significant effects or critical hazards.  
Resolve- AL HO  
No known significant effects or critical hazards.

Mutagenicity: EPON resin 828  
No known significant effects or critical hazards.  
Resolve- AL HO  
No known significant effects or critical hazards.

Teratogenicity: EPON resin 828  
No known significant effects or critical hazards.  
Resolve- AL HO  
No known significant effects or critical hazards.

Developmental effects: EPON resin 828  
No known significant effects or critical hazards.  
Resolve- AL HO  
No known significant effects or critical hazards.

Fertility effects: EPON resin 828  
No known significant effects or critical hazards.  
Resolve- AL HO  
No known significant effects or critical hazards.

Numerical measures of toxicity
Section 11. Toxicological information

Acute toxicity estimates
Not available.

Other information
EPON resin 828
Not available.
Resolve- AL HO
Not available.

Section 12. Ecological information

12.1 Toxicity
Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient ($K_{OC}$)
Not available.

12.5 Other adverse effects
EPON resin 828
No known significant effects or critical hazards.
Resolve- AL HO
No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods
Disposal methods
The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Date of issue: 08/29/2014
Section 14. Transport information

Regulatory information

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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


Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not 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

<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>EPON resin 828</td>
<td>60 - 100</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes</td>
<td>No.</td>
</tr>
<tr>
<td>Reaction product: Bisphenol-A- (Epichlorhydrin); epoxy resin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

State regulations

Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : None of the components are listed.
Pennsylvania : None of the components are listed.

California Prop. 65
No products were found.

Canada inventory : Not determined.

International regulations

Date of issue : 08/29/2014
Section 15. Regulatory information

International lists:
- Australia inventory (AICS): Not determined.
- China inventory (IECSC): Not determined.
- Japan inventory: Not determined.
- Korea inventory: Not determined.
- Malaysia inventory (EHS Register): Not determined.
- New Zealand Inventory of Chemicals (NZIoC): Not determined.
- Philippines inventory (PICCS): Not determined.
- Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals: Not listed
Chemical Weapons Convention List Schedule II Chemicals: Not listed
Chemical Weapons Convention List Schedule III Chemicals: Not listed

Section 16. Other information

History
- Date of issue: 8/29/2014.
- Date of previous issue: 6/21/2012.
- Version: 2

Notice to reader
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