MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Manufacturer’s name and address:
The W.W. Henry Company
400 Ardex Park Dr.
Aliquippa, PA 15001 USA

Supplier’s name and address:
Refer to Manufacturer

72x752 - Aug
218x710
MATERIAL SAFETY DATA SHEET

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The W.W. Henry Company
400 Ardex Park Dr.
Aliquippa, PA  15001
USA

Supplier’s name and address:
Refer to Manufacturer

Product Identifier:
HENRY® 635

Chemical Name:
N/Ap

Chemical Family:
Mixture

Chemical Formula:
N/Ap

Trade Name/Synonyms:
Henry 635

Molecular Weight:
N/Ap

Material Use:
Protective topcoat for concrete.

HMIS Rating:
Health: *2  Flammability  0  Reactivity  0

SECTION 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
WARNING! TOXIC. IRRITANT. Causes moderate to severe irritations to eyes and skin. May be harmful if inhaled, absorbed through skin or swallowed. Mild central nervous system depressant. High vapor concentrations may cause headache, nausea, dizziness, vomiting, drowsiness, incoordination and confusion.

Material Description:
Milky white liquid with slight odor.

OSHA Classification:
This material is classified as hazardous under OHSA regulations (29 CFR Part 1910.1200).

WHMIS Classification:
Class D1B (Toxic material with serious/immediate effects,); Class D2B (Materials Causing Other Toxic Effects, Toxic Material);

POTENTIAL HEALTH EFFECTS
Target organs:
Central Nervous System (CNS); Eyes; Kidneys; Liver; Testes, Bladder.

Routes of Exposure:
Inhalation: YES  Skin Absorption: YES  Skin and Eyes: Yes  Ingestion: YES

Signs and symptoms of short-term (acute) exposure

Inhalation:
May be harmful if inhaled. Inhalation of high concentrations may cause CNS effects such as nausea, headache, dizziness, fatigue, unconsciousness, and coma. May cause motor incoordination and speech abnormalities.

Skin:
May cause moderate to severe skin irritation. Product may be harmful if absorbed through the skin, producing effects similar to inhalation or ingestion.

Eyes:
Direct contact will cause moderate to severe irritation to the eyes. Symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:
May cause irritation to the mouth, throat, and stomach. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. This material can get into the lungs (aspiration) during swallowing or vomiting. Small amounts in the lungs can cause chemical pneumonitis, possibly leading to chronic lung dysfunction or death.

Effects of long-term (chronic) exposure:
Long-term inhalation exposure may produce toxicity to the blood system and/or may cause damage to the liver, kidneys, testes, and bladder. May also be absorbed through the skin in toxic amounts.

Conditions aggravated by overexposure:
Pre-existing skin, eye, kidney, liver, central nervous system (CNS), and respiratory disorders.
Carcinogenic status: This product is not known to contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC, or NTP. See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards: See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects: See ECOLOGICAL INFORMATION, Section 12.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>% (by weight)</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td>111-90-0</td>
<td>1.00 – 5.00</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>3.00 – 7.00</td>
<td>20 ppm</td>
<td>N/Av</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>1.00 – 5.00</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

### SECTION 4 – FIRST AID MEASURES

**Inhalation**: If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If not breathing, clear airway and start artificial respiration. Seek immediate medical attention/advice.

**Skin contact**: Remove/Take off immediately all contaminated clothing. Wash affected skin immediately with soap and plenty of water. Seek immediate medical attention/advice.

**Eye contact**: Immediately flush eyes thoroughly with running water for at least 15 minutes. Seek immediate medical attention/advice.

**Ingestion**: Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting. Have victim drink one to two glasses of water. Seek immediate medical attention/advice.

**Notes for Physician**: Treat symptomatically.

### SECTION 5 – FIRE FIGHTING MEASURES

**Fire hazards/conditions of flammability**: Extremely flammable liquid. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapours may be heavier than air and may collect in confined and low-lying areas. Vapour can travel considerable distance and flashback to a source of ignition. Material will float on water and can be re-ignited at the water’s surface.


**Flash point**: > 200 °F (> 93.3°C)  
**Lower flammable limit (% by vol)**: 1.4

**Flash point method**: SetaFlash, CC

**Auto-ignition temperature**: N/Av  
**Upper flammable limit (% by vol)**: N/Ap

**Oxidizing properties**: None

**Flame projection length**: Not available  
**Flashback observed**: Not available

**Explosion data**: Sensitivity to mechanical impact / static discharge: Not expected to be sensitive to mechanical impact or static discharge.

**Suitable extinguishing media**: Dry chemical, carbon dioxide, water fog, and foam.

**Special fire-fighting procedures/equipment**: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

**Hazardous combustion products**: Carbon monoxide; Carbon dioxide; Hydrocarbons; Aldehydes; other unidentified organic compounds.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES
**Personal precautions**: TOXIC. IRRITANT. Restrict access to area until completion of clean-up. Avoid breathing dust or fume. Wear the appropriate chemically protective equipment. Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

**Environmental precautions**: Do not allow product to enter waterways. Do not allow material to contaminate ground water system.

**Spill response / clean-up**: Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g., sand), then place absorbent material into a container for later disposal (see Section 13). Flush with water. Do not flush into surface water or sanitary sewer system. Notify the appropriate authorities as required.

**Incompatible materials**: See Section 10.

**Special spill response procedures**: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002). US CERCLA Reportable quantity (RQ): None to report.

**SECTION 7 – HANDLING AND STORAGE**

**Safe handling procedures**: TOXIC. IRRITANT. Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product vapor, dust or fume is important. Do not breathe vapours/dust. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash thoroughly after handling.

**Storage requirements**: Store in a cool, dry, well-ventilated area. No smoking in the area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.

**Incompatible materials**: See Section 10.

**Special packaging materials**: Always keep in containers made of the same materials as the supply container.

**SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Ventilation and engineering measures**: Use with adequate ventilation. Provide adequate cross air circulation. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

**Respiratory protection**: Respiratory protection is required if the concentrations exceed the TLV. If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised.

**Skin protection**: Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

**Eye / face protection**: Chemical goggles are recommended. A full face shield may also be necessary.

**Other protective equipment**: Full chemical-resistant protective clothing should be used whenever splashing is anticipated. An eyewash station and safety shower should be made available in the immediate working area.

**General hygiene considerations**: Avoid contact with eyes, skin and clothing. Do not breathe vapors/dust. Do not eat, drink or smoke when using this product. Clean all equipment and clothing at end of each work shift.

**Permissible exposure levels**: For individual ingredient exposure levels, see Section 3.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/Av</td>
</tr>
<tr>
<td>pH</td>
<td>8.5 – 8.8</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.02</td>
</tr>
<tr>
<td>Boiling point</td>
<td>N/Av</td>
</tr>
<tr>
<td>Coefficient of water/oil distribution</td>
<td>N/Av</td>
</tr>
<tr>
<td>Melting/Freezing point</td>
<td>N/Av</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Dispersible</td>
</tr>
<tr>
<td>Vapor pressure (mm Hg @ 20°C / 68°F)</td>
<td>17</td>
</tr>
</tbody>
</table>

**Appearance**: milky white liquid.
Evaporation rate ($n$-Butyl acetate = 1) : 0.02
Vapor density (Air = 1) : N/Av
Volatile (% by weight) : 70 – 75
General information : N/Av
Volatile organic compounds (VOCs) : max 250 g/L (Calculated, SCAQMD Rule 1168)
Particle size : N/Av
Flammability properties : See Section 5.

**SECTION 10 – REACTIVITY AND STABILITY INFORMATION**

Stability and reactivity : Stable under the recommended storage and handling conditions prescribed.
Hazardous polymerization : Hazardous polymerization does not occur.
Conditions to avoid : Temperatures above 32.2°C (90°F).
Materials to avoid and incompatibility : Strong oxidizing agents; Reducing agents; Acids, Bases.
Hazardous decomposition products : Refer to hazardous combustion products in Section 5.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>LC50 (4 hr) Inhalation, rat</th>
<th>LD50 Oral, rat</th>
<th>LD50 Dermal, rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol monoethyl ether</td>
<td>N/Av</td>
<td>5,540 mg/kg</td>
<td>N/Av</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm</td>
<td>470 mg/kg</td>
<td>220 mg/kg</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>N/Av</td>
<td>4140 mg/kg</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects : None known.
Teratogenicity : Diethylene glycol monomethyl ether may cause teratogenic or embryotoxic effects.
Mutagenicity : Zinc oxide has been found to be mutagenic for mammalian somatic cells in laboratory animal tests. Zinc oxide is also mutagenic for bacteria and/or yeast.
Epidemiology : Not available.
Sensitization to material : None known.
Synergistic materials : N/Av
Irritancy : Moderate degree of irritation to eyes and skin.
Other important hazards : See Section 2 for additional information.

**SECTION 12 – ECOLOGICAL INFORMATION**

Environmental effects : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
Important environmental characteristics : No data is available on the product itself.
Ecotoxicological : No data is available on the product itself.

**SECTION 13 – DISPOSAL CONSIDERATION**

Handling for disposal : Handle waste according to recommendations in Section 7.
Methods of disposal : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
RCRA: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Shipping Name</th>
<th>Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>None</td>
<td>Not regulated</td>
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<td>None</td>
<td></td>
</tr>
<tr>
<td>Additional Information</td>
<td>None.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 49 CFR/DOT Additional Information | None. | |

| 49 CFR/DOT | None | |

SECTION 15 – REGULATORY INFORMATION

Canadian Information:
Canadian WHMIS Classification: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR). Refer to Section 2 for a WHMIS Classification for this product. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

US Federal Information:
TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None Reportable.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above de minimus concentrations. This product contains: Hexane; Toluene.

U.S. State Right To Know Laws
California Proposition 65: Warning! This product contains a chemical known to the State of California to cause cancer or reproductive toxicity.

Other State Right to Know Laws: 2-butoxyethanol [CAS# 111-76-2] (CA, MA, MN, NJ, PA, RI); Diethylene glycol monomethyl ether [CAS# 111-77-3] (MA,PA).

SECTION 16 – OTHER INFORMATION

Legend:
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CNS: Central Nervous System
DOT: Department of Transportation
DSL: Domestic Substances List
EPA: Environmental Protection Agency
IARC: International Agency for Research on Cancer
Inh: Inhalation
N/A: Not Available
References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2012.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2012 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.
6. California Proposition 65 List - February 08, 2013 version

Disclaimer of Liability

The information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. The W.W. Henry Company will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein. This Material Safety Data Sheet is valid for three (3) years.

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