**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: COLORFIL ACTIVATOR


CHEMICAL FAMILY: Polyamine mixture.

INTENDED PRODUCT USES: Curing agent for epoxy resins.

PRODUCT USE RESTRICTIONS: None identified.

SDS VERSION: 206-2019a

MANUFACTURER: Gougeon Brothers, Inc.
100 Patterson Ave.
Bay City, MI 48706, U.S.A.
Phone: 866-937-8797 or 989-684-7286
www.westsystem.com

EMERGENCY TELEPHONE NUMBERS (24 HRS):
Transportation
CHEMTREC: 800-424-9300 (U.S.)
703-527-3887 (International)
Non-transportation
Poison Hotline: 800-222-1222

**2. HAZARDS IDENTIFICATION**

Classification of Substance or Mixture

- Acute toxicity, Oral, Category 4
- Acute toxicity, Inhalation, Category 5
- Skin corrosion/irritation, Category 1B
- Skin sensitizer, Category 1
- Eye damage/irritation, Category 1
- Specific target organ toxicity (single exposure - inhalation), Category 3
- Acute aquatic toxicity, Category 3
- Chronic aquatic toxicity, Category 2

Label Elements

Hazard Pictogram(s):

![Hazard Pictogram]

Signal Word: DANGER

Hazard Statements:

- H302 Harmful if swallowed
- H314 Causes severe skin burns and eye damage
- H317 May cause an allergic skin reaction
- H333 May be harmful if inhaled
- H335 May cause respiratory irritation
- H411 Toxic to aquatic life with long lasting effects

Precautionary Statements:

Prevention

- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P264 Wash hands thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well ventilated area
- P272 Contaminated work clothing should not be allowed out of the workplace
- P273 Avoid release to the environment
- P280 Wear protective gloves/protective clothing/eye protection/face protection

Response

- P301 + P330 + 331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse or wash skin with soap and water (or shower).
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
- Continue rinsing.
- P310 Immediately call POISON CONTROL CENTER or doctor.
- P333 + P313 If skin irritation or rash occurs: Get medical attention
- P362 + P364 Take off contaminated clothing and wash it before reuse or discard
- P391 Collect spillage

Storage
6. ACCIDENTAL RELEASE MEASURES

Mitigation and Clean Up Procedures: Stop leak without additional risk. Isolate area. Dike and absorb with inert material (e.g., sand) and collect in a suitable, closed container. Do not use sawdust, wood chips or other cellulosic materials to absorb the spill, as the possibility for spontaneous combustion exists. Warm, soapy water may be used to clean residual.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Suitable: Foam, carbon dioxide (CO₂), dry chemical. Non-Suitable: Direct water stream.

Fire and Explosion Hazards: During a fire, smoke may contain the original materials in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include, but are not limited to: oxides of nitrogen, carbon monoxide, carbon dioxide, volatile amines, ammonia, nitric acid and nitrosamines. When mixed with sawdust, wood chips, or other cellulosic material, spontaneous combustion can occur under certain conditions. Heat is generated as the air oxidizes the amine. If the heat is not dissipated quickly enough, it can ignite the sawdust.

Special Fire Fighting Procedures: Use full-body protective gear and a self-contained breathing apparatus. Use of water may generate toxic aqueous solutions. Do not allow water run-off from fighting fire to enter drains or other water courses.

4. FIRST AID MEASURES

First Aid for Eyes: Symptoms: Causes eye burns and eye damage. Response: Flush immediately with water for at least 15 minutes. Remove contact lenses if present and easy to do. Immediately call a POISON CENTER or doctor. Notes to Physician: Chemical eye burns may require extended irrigation.

First Aid for Skin: Symptoms: Causes skin burns, redness and irritation. May cause allergic skin reaction and sensitization. Response: Immediately wash skin with soap and water. Immediately call a POISON CENTER or doctor.

First Aid for Inhalation: Symptoms: Can cause respiratory irritation, shortness of breath, cough and asthma-like conditions. Exposure to aerosol/mist/fumes/vapors from sprayed or heated product can cause serious health effects and can be fatal. Response: Remove to fresh air if effects occur and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Notes to Physician: Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Respiratory symptoms, including pulmonary edema, may be delayed. Persons who experienced significant exposure should be observed for 24-48 hours for signs of respiratory distress.

First Aid for Ingestion: Symptoms: May cause gastrointestinal irritation or ulceration. May cause burns of the mouth and throat. Response: Rinse mouth with water. Do NOT induce vomiting. If vomiting should occur, keep airway clear. Immediately call POISON CENTER or doctor. Notes to Physician: Although product does not meet criteria for aspiration toxicity, vomitus may cause lung injury. Consider endotracheal/esophageal control if lavage is done.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME</th>
<th>CAS #</th>
<th>CONCENTRATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypropylenediamine</td>
<td>9046-10-0</td>
<td>30-60</td>
</tr>
<tr>
<td>Polymer of epichlorohydrin / bisphenol A and diethylenetriamine</td>
<td>31326-29-1</td>
<td>10-30</td>
</tr>
<tr>
<td>Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>10-30</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>7-13</td>
</tr>
<tr>
<td>Triethylenenetetramine, reaction products with propylene oxide</td>
<td>26950-63-0</td>
<td>5-10</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>1-5</td>
</tr>
</tbody>
</table>

The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

Other Hazards
None known.
ENVIRONMENTAL PRECAUTIONS: Prevent from entering into soil, ditches, sewers, waterways and groundwater. See Section 12 for environmental impact information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): 40°F (4°C) / 90°F (32°C).

STORAGE: Store in cool, dry place away from high temperatures and moisture. Keep container tightly closed. Store in a secure location with restricted access or store locked up.

HANDLING PRECAUTIONS: DO NOT spray apply or heat this product. Use only outdoors or with adequate ventilation. If ventilation cannot be made adequate, refer to respiratory protection in Section 8. Do not breathe vapors or mists from heated material. Do not breathe concentrated vapors. Avoid skin and eye contact. Wash thoroughly after handling. When mixed with epoxy resin this product causes an exothermic reaction, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use with adequate general ventilation and/or local ventilation to keep exposures below established limits.

EYE PROTECTION GUIDELINES: Chemical splash-proof goggles or face shield.

SKIN PROTECTION GUIDELINES: Wear liquid-proof, chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.

RESPIRATORY PROTECTION GUIDELINES: When ventilation cannot be made adequate enough to keep exposures below established limits, use a NIOSH approved respirator with an organic vapor cartridge, organic vapor cartridge + P100, or a multi-contaminant cartridge, depending on specific workplace conditions. Consult with your respirator and cartridge supplier to ensure proper selection of respirator and cartridge based on ingredients listed in Section 3 and specific workplace conditions. Use and select a respirator according the guidelines established in OSHA 1910.134 or other applicable respiratory protection standard.

ADDITIONAL PROTECTIVE MEASURES: Use where there is immediate access to safety shower and emergency eye wash. Wash thoroughly after use. Contact lens should not be worn when working with this material. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS: Exposure limits may not be established for this product as a whole. For established exposure limits of specific ingredients in this product, or other available exposure limit information, refer to the table below.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS#</th>
<th>Exposure Limit Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypolyethyleneimine</td>
<td>9046-10-0</td>
<td>No data available</td>
</tr>
<tr>
<td>Polymer of epichlorohydrin / bisphenol A and diethylenetriamine</td>
<td>31326-29-1</td>
<td>No data available</td>
</tr>
<tr>
<td>Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>AIHA WEEL: 1 ppm; 5 mg/kg; SKIN</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>1 ppm TWA ACHIH, (SKIN)</td>
</tr>
<tr>
<td>Triethylene tetramine, reaction products with propylene oxide</td>
<td>26955-63-0</td>
<td>No data available</td>
</tr>
<tr>
<td>Triethylene tetramine</td>
<td>112-24-3</td>
<td>AIHA WEEL: 1 ppm; 6 mg/m3; SKIN</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM: Liquid.
COLOR: Colorless
ODOR: Ammonia-like
ODOR THRESHOLD: No data available
pH: 11.0
MELTING POINT / FREEZING POINT: No data.
BOILING POINT (760mm/Hg): > 400°F (204°C) estimated based on similar product.
FLASH POINT: > 200°F (93°C) estimated based on similar product.
AUTO IGNITION TEMPERATURE: No data.
LOWER EXPLOSIVE LIMIT (LEL): No data.
UPPER EXPLOSIVE LIMIT (UEL): No data.
VAPOR PRESSURE: < 1 mmHg @ 20°C (estimated based on ingredient data).
SPECIFIC GRAVITY/DENSITY (water = 1): 1.01
BULK DENSITY: 8.45 lbs./gal. (1.01 kg/L)
VAPOR DENSITY (air = 1): No data.
EVAPORATION RATE (Butyl Acetate = 1): No data.
WATER SOLUBILITY (% BY WT.): No data.
PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow): No data.
KINEMATIC VISCOSITY: 65.6 (mm²/s @ 40°C)
DECOMPOSITION TEMPERATURE: No data available.
10. STABILITY AND REACTIVITY

STABILITY: Product is stable at normal temperatures and pressures.

REACTIVITY/HAZARDOUS REACTIONS: Product will not react by itself. A mass of more than one pound of product plus an epoxy resin will cause irreversible polymerization with significant heat buildup and pressure.

INCOMPATIBILITIES: Avoid acids, oxidizing materials, halogenated organic compounds (e.g., methylene chloride). External heating or self-heating could result in rapid temperature increase and pressure build up. If such a condition were to occur in a drum, the drum could expand and rupture violently.

CONDITIONS TO AVOID: Avoid excessive heat.

DECOMPOSITION PRODUCTS: Very toxic fumes and gases when burned or otherwise heated to decomposition. Decomposition products may include, but not limited to: oxides of nitrogen, volatile amines, ethylenediamine, ammonia, nitric acid, nitrosamines.

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS#</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypropylenediamine</td>
<td>9046-10-0</td>
<td>2855 mg/kg</td>
<td>2980 mg/kg</td>
<td>&gt;0.74 mg/L 8h mist</td>
</tr>
<tr>
<td>Polymer of epichlorohydin / bisphenol A and</td>
<td>31326-29-1</td>
<td>ATPE (500 mg/kg)</td>
<td>ATPE (1100 mg/kg)</td>
<td>No data available</td>
</tr>
<tr>
<td>diethylenetriamine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>1600 mg/kg</td>
<td>1260 mg/kg</td>
<td>No data available</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>1620 mg/kg</td>
<td>1090 mg/kg</td>
<td>No data available</td>
</tr>
<tr>
<td>Triethylenetetramine, reaction products with</td>
<td>26950-63-0</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>propylene oxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>1716.2 mg/kg</td>
<td>805 mg/kg</td>
<td>No data available</td>
</tr>
</tbody>
</table>

¹ LC₅₀ data has been generated for this substance by subjecting rats to an airborne aerosol/mist atmosphere in a test chamber. It has not been determined that this data directly correlates to an inherent hazard of this product as would be expected under normal, foreseeable or anticipated conditions of use.

ACUTE TOXICITY: No specific toxicity data exists for this mixture. Classification is based on acute toxicity estimation methods using ingredient data.

Oral: Category 4. Harmful if swallowed. May cause gastrointestinal irritation or ulceration. May cause burns of the mouth and throat.

Dermal: Not classified. Based on available data does not meet classification criteria.

Inhalation: Category 5. May be harmful if inhaled.

SKIN CORROSION / IRRITATION: Category 1B. Causes severe skin burns. Effects may be immediate. May cause persistent irritation or dermatitis.

SERIOUS EYE DAMAGE / IRRITATION: Category 1. Causes serious eye damage. May cause blurred vision. May cause corneal damage resulting in vision impairment or even blindness.

RESPIRATORY SENSITIZATION: Not classified. Based on available data does not meet classification criteria.

SKIN SENSITIZATION: Category 1. May cause allergic skin reaction.

REPRODUCTIVE TOXICITY: Not classified. Based on available data does not meet classification criteria.

MUTAGENICITY: Not classified. Based on available data does not meet classification criteria.

CARCINOGENICITY: Not classified. Based on available data does not meet classification criteria.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure): STOT SE Category 3. May cause irritation to the upper respiratory tract.

SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure): Not classified. Based on available data does not meet classification criteria.

ASPIRATION HAZARD: Not classified. Based on available data does not meet classification criteria.
### 12. ECOLOGICAL INFORMATION

**ACUTE AQUATIC TOXICITY**: Category 3. No specific test data available for the mixture.

*Calculated Estimate. Harmful to aquatic life.*

**CHRONIC AQUATIC TOXICITY**: Category 2. No specific test data available for the mixture.

*Calculated Estimate. Toxic to aquatic life with long lasting effects.*

**PERSISTANCE AND BIODEGRADABILITY**: No specific test data available for the mixture.

**MOBILITY IN SOIL**: No specific test data available for the mixture.

**ADDITIONAL ECOTOXICITY INFORMATION**: In the liquid, uncured state, this product may be harmful to aquatic life with long lasting effects. Prevent release to the environment, sewers and natural waters.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Ecotoxicity Classification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypolylenediamine</td>
<td>9046-10-0</td>
<td>Acute Aquatic Cat. 3; Chronic Aquatic Cat. 2</td>
</tr>
<tr>
<td>Polymer of epichlorohydryn / bisphenol A and diethylenetriamine</td>
<td>31328-29-1</td>
<td>Not classified</td>
</tr>
<tr>
<td>Tetraethylenepentamine</td>
<td>112-57-2</td>
<td>Acute Aquatic Cat. 2; Chronic Aquatic Cat. 2</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>Not classified</td>
</tr>
<tr>
<td>Triethylenetetramine, reaction products with propylene oxide</td>
<td>26950-63-0</td>
<td>Not classified</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>Chronic Aquatic Cat. 3</td>
</tr>
</tbody>
</table>

### 13. DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD**: Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods.

Incorporate, recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

### 14. TRANSPORTATION INFORMATION

**US DOT**

- **UN NUMBER**: UN 2735
- **SHIPPING NAME**: Polyamines, liquid, corrosive, n.o.s.
- **TECHNICAL SHIPPING NAME**: Polyoxypolylenediamine
- **HAZARD CLASS**: Class 8
- **PACKING GROUP**: PG II
- **MARINE POLLUTANT**: Yes

**CANADA TDG**

- **UN NUMBER**: UN 2735
- **SHIPPING NAME**: Polyamines, liquid, corrosive, n.o.s.
- **TECHNICAL SHIPPING NAME**: Polyoxypolylenediamine
- **HAZARD CLASS**: Class 8
- **PACKING GROUP**: PG II
- **MARINE POLLUTANT**: No

**IMDG**

- **UN NUMBER**: UN 2735
- **SHIPPING NAME**: Polyamines, liquid, corrosive, n.o.s.
- **TECHNICAL SHIPPING NAME**: Polyoxypolylenediamine
- **HAZARD CLASS**: Class 8
- **PACKING GROUP**: PG II
- **EmS Number**: F-A, S-B
- **MARINE POLLUTANT**: Yes

**ICAO/IATA**

- **UN NUMBER**: UN 2735
- **SHIPPING NAME**: Polyamines, liquid, corrosive, n.o.s.
- **TECHNICAL SHIPPING NAME**: Polyoxypolylenediamine
- **HAZARD CLASS**: Class 8
- **PACKING GROUP**: PG II
MARINE POLLUTANT: ................................................................. Yes

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>INVENTORY LIST</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>TSCA</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Europe</td>
<td>EINECS or ELINCS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Canada</td>
<td>CEPA (DSL/NDSSL)</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Australia</td>
<td>AICS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Japan</td>
<td>ENCS</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>South Korea</td>
<td>KECI</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>China</td>
<td>IECSC</td>
<td>All ingredients are listed or otherwise compliant.</td>
</tr>
<tr>
<td>Philippines</td>
<td>PICCS</td>
<td>CAS# 26950-63-0 not on this inventory list.</td>
</tr>
</tbody>
</table>

US EPA TSCA Requirements: ........................................................... No data available.

Canada WHMIS Confidential Business Information (CBI):................. No data available.

US EPA SARA TITLE III Reporting and Notification Requirements:
- Subject to Section 302 (TPQ) .................................................. No data available.
- Subject to Section 304 (RQ) ................................................ No data available.
- Subject to Section 311 or 312 ............................................. Immediate, Delayed.
- Subject to Section 313 ....................................................... No data available.

US STATE REGULATORY INFORMATION:
The following chemicals may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

<table>
<thead>
<tr>
<th>COMPONENT NAME/ CAS NUMBER</th>
<th>STATE CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene oxide 75-56-9</td>
<td>1CA</td>
</tr>
<tr>
<td>Diethylenetriamine 111-40-0</td>
<td>PA</td>
</tr>
<tr>
<td>Triethylenetetramine 112-14-3</td>
<td>PA</td>
</tr>
<tr>
<td>Tetraethylenepentamine 112-57-2</td>
<td>PA</td>
</tr>
</tbody>
</table>

1. These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

REASON FOR ISSUE:......................................................................... Updates to sections 3, 8, 11 & 15.
PREPARED BY:............................................................................. Gougeon Brothers, Inc.
SDS CONTACT:............................................................................ safety@gougeon.com
TITLE:........................................................................................ Health, Safety & Environmental Manager
APPROVAL DATE:......................................................................... January 15, 2019
SUPERSEDES DATE:...................................................................... September 7, 2016
SDS VERSION:............................................................................... 206-2019a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

HMIS® RATING

| HEALTH: | 3 |
| FLAMMABILITY: | 1 |
| PHYSICAL HAZARD: | 0 |

NFPA® 704 CODES

Approximate HMIS and NFPA Risk Ratings Legend:
0 = Low or None; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe