SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: RESYDROL® AY 6838w/35WA liquid coating resins
Synonyms: None
Product Description: Acrylate modified oil-free polyester resin neutralized in water-based solution
Molecular Formula: Mixture
Molecular Weight: Mixture
Intended/Recommended Use: Binder

Allnex USA Inc., 9005 Westside Parkway, Alpharetta, Georgia 30009, USA
For Product and all Non-Emergency Information call your local Allnex contact point or contact us at http://www.allnex.com/contact

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:
+1-866-928-0789 (toll free) or +1-215-207-0061 (Carechem 24 - Allnex29003-NCEC)
See Section 16 for Emergency phone numbers for other regions.

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2. HAZARDS IDENTIFICATION

GHS Classification
Not Classified

LABEL ELEMENTS
Not applicable

Hazard Statements
Not applicable

Precautionary Statements
Not applicable

Hazards Not Otherwise Classified (HNOC), Other Hazards
The EPA has determined that the Acrylate modified oil-free polyester resin neutralized in water is not likely to present an unreasonable risk of injury to health or the environment under TSCA section 5(a)(3)(C). The neutralizing cation may cause reproductive toxicity, specific organ toxicity.
3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>%</th>
<th>GHS Classification</th>
<th>Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol methyl ether 34590-94-8</td>
<td>&lt;= 5.2</td>
<td>Flam. Liq. 4 (H227)</td>
<td>-</td>
</tr>
</tbody>
</table>

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

4. FIRST AID MEASURES

First-aid Measures

Inhalation:
Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

Skin Contact:
Wash immediately with plenty of water and soap.

Eye Contact:
Rinse immediately with plenty of water for at least 15 minutes.

Ingestion:
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

Most Important Symptoms and Effects, Acute and Delayed
None known.

Immediate Medical Attention and Special Treatment
Not applicable.

Notes To Physician:
No specific measures have been identified.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Use water spray or fog, carbon dioxide or dry chemical.

Protective Equipment:
Firefighters, and others exposed, wear self-contained breathing apparatus.

Special Hazards:
Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up:
Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

Environmental Precautions:
None known.

References to other sections:
See Sections 7, 8 and 13 for additional information.

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7. HANDLING AND STORAGE

HANDLING
Precautions: Wash hands thoroughly after handling.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary). During processing and handling of the product, comply with the indicative occupational exposure limit values.

STORAGE
Store in a cool, dry, well ventilated place and keep container tightly closed. Observe the general rules of industrial fire protection. Sensitive to frost.

Storage Temperature: Store at 5 - 25 °C 41 - 77 °F
Reason: Quality.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:
Engineering controls are not usually necessary if good hygiene practices are followed.

Respiratory Protection:
For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user’s own risk assessment. Recommended respirators include those certified by NIOSH.

Recommended:
Full Face Mask with a combination particulate/organic vapor cartridge.

Eye Protection:
Wear eye/face protection such as chemical splash proof goggles or face shield.

Skin Protection:
Avoid skin contact. Wear impermeable gloves.

Hand Protection:
Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user’s own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for repeated or prolonged exposure - non exhaustive list:
Butyl rubber (VB), thickness: > 0.30 mm, break through time: up to 480 min
Gloves for short term exposure/splash protection - non exhaustive list:
Nitrile rubber (NBR), thickness: 0.38 mm, break through time: up to 60 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:
Nitrile rubber (NBR), thickness: 0.12 mm

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Additional Advice:
Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

Exposure Limit(s)

34590-94-8 Dipropylene glycol methyl ether

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA (PEL):</td>
<td>100 ppm (TWA)</td>
<td>600 mg/m³ (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(skin)</td>
</tr>
<tr>
<td>ACGIH (TLV):</td>
<td>150 ppm (STEL)</td>
<td>100 ppm (TWA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(skin)</td>
</tr>
<tr>
<td>Other Value:</td>
<td>Not established</td>
<td></td>
</tr>
</tbody>
</table>

Biological Exposure Limit(s)

No values have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: light yellow
Appearance: liquid
Odor: mild
Boiling Point: 60 - 100 °C 140 - 212 °F
Melting Point: Not available
Vapor Pressure: Not available
Specific Gravity/Density: ~ 1.06 g/cm³ DIN EN ISO 2811-2
Vapor Density: Not available
Percent Volatile (% by wt.): mostly water
pH: 7.5 - 9.2 DIN ISO 976
Saturation In Air (% By Vol.): Not available
Evaporation Rate: Not available
Solubility In Water: dispersible
Volatile Organic Content: Not available
Flash Point: > 94 °C 201.2 °F ASTM D 6450
Flammable Limits (% By Vol.): Not available
Autoignition Temperature: Not available
Decomposition Temperature: Not available
Partition coefficient (n-octanol/water): Not available
Odor Threshold: Not available
Viscosity (Kinematic): Not available
10. STABILITY AND REACTIVITY

Reactivity: No information available
Stability: Stable.

Conditions To Avoid: Excessively high temperatures and ignition sources.

Polymerization: Will not occur

Conditions To Avoid: None known.

Materials To Avoid: None known

Hazardous Decomposition Products: Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Oral, Eyes, Skin.

Acute toxicity - oral: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - dermal: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - inhalation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin corrosion / irritation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Serious eye damage / eye irritation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Respiratory sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Carcinogenicity: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Germ cell mutagenicity: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Reproductive toxicity: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Aspiration hazard: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.
PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

<table>
<thead>
<tr>
<th>Type</th>
<th>Species</th>
<th>Route</th>
<th>LD50/C or LC50/C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>rat</td>
<td>Acute LD50</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>rabbit</td>
<td>Acute LD50</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Inhalation</td>
<td>rat</td>
<td>Acute LC50</td>
<td>&gt; 5 mg/l (Dust/Mist)</td>
</tr>
</tbody>
</table>

LOCAL EFFECTS ON SKIN AND EYE

- Acute Irritation (dermal): Not irritating
- Acute Irritation (eye): Not irritating

ALLERGIC SENSITIZATION

- Sensitization (Skin): No data
- Sensitization (Respiratory): No data

GENOTOXICITY

- Ames Salmonella Assay: No data

OTHER INFORMATION

The product toxicity information above has been estimated.

11. TOXICOLOGICAL INFORMATION

HAZARDOUS INGREDIENT TOXICITY DATA

Dipropylene glycol methyl ether has acute oral (rat) and dermal (rabbit) LD50 values of 5135 mg/kg and 9500 mg/kg, respectively. Direct contact can cause mild eye and skin irritation.

WARNING: Cancer – www.P65Warnings.ca.gov

12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

This material is not classified as dangerous for the environment. The ecological assessment for this material is based on an evaluation of its components.

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined
HAZARDOUS INGREDIENT TOXICITY DATA

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>Toxicity to Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol methyl ether (34590-94-8)</td>
<td>LC50 &gt; 10000 mg/L - Pimephales promelas (96h)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>Toxicity to Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol methyl ether (34590-94-8)</td>
<td>LC50 = 1919 mg/L - Daphnia magna (48h)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>Toxicity to Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol methyl ether (34590-94-8)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol methyl ether (34590-94-8)</td>
<td>-0.064</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this SDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Dangerous Goods? Not applicable/Not regulated

TRANSPORT CANADA

Dangerous Goods? Not applicable/Not regulated
ICAO / IATA
Dangerous Goods? Not applicable/Not regulated

IMO
Dangerous Goods? Not applicable/Not regulated

SPECIAL PRECAUTIONS FOR USER
Sensitive to frost.

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory. The final product contains a component exempt from the requirement of listing on the TSCA Inventory under the provisions of the Polymer Exemption, 40 CFR 723.250.

Canada: One or more components of this product are NOT included on the Canadian Domestic Substances List (DSL).

European Economic Area (including EU): When purchased from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt and/or registered.

Australia: One or more components of this product have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or assessed by NICNAS.

New Zealand: This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

China: One or more components of this product are NOT included on the Chinese (IECSC) inventory.

Japan: One or more components of this product are NOT included on the Japanese (ENCS and/or ISHL) inventories.

Korea: One or more components of this product are NOT included on the Korean (ECL) inventory.

Philippines: One or more components of this product are NOT included on the Philippine (PICCS) inventory.

Taiwan: One or more components of this product are NOT included in the Taiwan chemical substance inventory (TCSI).

OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

<table>
<thead>
<tr>
<th>Component / CAS No.</th>
<th>%</th>
<th>TPQ (lbs)</th>
<th>RQ(lbs)</th>
<th>S313</th>
<th>TSCA 12B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene glycol methyl ether</td>
<td>&lt;= 5.2</td>
<td>None</td>
<td>0</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>34590-94-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PRODUCT HAZARD CATEGORY UNDER SECTIONS 311 AND 312 OF EPCRA
Physical Hazards
Not applicable

Health Hazards
Not applicable

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)
   Health:  1 - Materials that, under emergency conditions, can cause significant irritation.
   Fire:  1 - Materials that must be preheated before ignition can occur.
   Instability:  0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue: Revised Section 11

Date Prepared: 11/26/2018
Date of last significant revision: 11/26/2018

Dipropylene glycol methyl ether
H227 - Combustible liquid.

Emergency phone numbers for other regions

Asia Pacific
Australia:  +61 1800 022 037 (Allnex Australia)
China (PRC):  +86(0)25 8547 7110 (Jiangsu registration center) / +86(0)532 8388 9090 (NRCC)
India:  000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)
Indonesia:  007 803 011 0293 (Carechem 24)
Japan:  +81 345 789 341 (Carechem 24)
Korea:  +82 2 3479 8401 (Carechem 24)
Malaysia:  +60 3 6207 4347 (Carechem 24)
New Zealand:  +64 0800 803 002 (Allnex New Zealand)
Philippines:  +63 2 231 2149 (Carechem 24)
Taiwan:  +886 2 8793 3212 (Carechem 24)
Vietnam:  +84 8 4458 2388 (Carechem 24)
All Others:  +65 3158 1074 (Carechem 24)

Europe
+44 (0) 1235 239 670 (Carechem 24)

Middle East, Africa
+44 (0) 1235 239 671 (Carechem 24)

Latin America
Brazil:  +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)
Chile:  +56 2 2582 9336 (Carechem 24)
Mexico and all others:  +52-555-004-8763 (Carechem 24)
<table>
<thead>
<tr>
<th>Material Type:</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Group:</td>
<td>Coating Resins</td>
</tr>
<tr>
<td>Department:</td>
<td>Coating Resins - LRA (Water Borne)</td>
</tr>
<tr>
<td>Status:</td>
<td>Active</td>
</tr>
</tbody>
</table>