**SAFETY DATA SHEET**

*Product Name: Amyloid Red*

*Date: June 1, 2015*

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**SECTION 1: IDENTIFICATION**

*Product:* Amyloid Red  
*Product number:* 868, 881A  
*Synonyms:* Amyloid stain  
*Recommended use:* Laboratory chemical

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**SECTION 2: HAZARD(S) IDENTIFICATION**

**Classification of substance**  
- Flammable liquid (Category 3)  
- Skin corrosion/irritation (Category 2)  
- Eye damage/irritation (Category 2B)  
- Specific target organ toxicity, single exposure (STOT-SE) (Category 3) (Respiratory irritant)

**Signal word**  
Warning

**Hazard statement**  
Flammable liquid and vapor.  
Causes skin irritation.  
Causes eye irritation.  
May cause respiratory irritation.

**Pictogram**

**Precautionary statements**

**Prevention**  
- Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
- Keep container tightly closed.  
- Ground/bond container and receiving equipment.  
- Use explosion-proof electrical/ventilating and lighting equipment.  
- Use only non-sparking tools.  
- Take precautionary measures against static discharge.  
- Wear protective gloves/protective clothing/eye protection/face protection.  
- Wash skin thoroughly after handling.  
- Avoid breathing mist/vapors/spray.  
- Use in a well-ventilated area.

**Response**  
If on skin/hair: Take off immediately all contaminated clothing. Wash with plenty of water.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call poison center or get medical advice/attention if you feel unwell.  
Specific treatment: See Section 4 of this SDS.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
In case of fire: Use dry chemical, carbon dioxide, water spray or alcohol-resistant foam to extinguish.
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Storage
Store in a well-ventilated place.
Keep container tightly closed.
Keep cool.
Store locked up.

Disposal
Dispose of contents/containers in accordance with governmental regulations.

Hazards not otherwise classified
None as defined under 29 CFR 1900.1200.

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS#</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Red 72 (C.I. 29200)</td>
<td>10114-26-6</td>
<td>*</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>*</td>
</tr>
<tr>
<td>Salts</td>
<td>*</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Acid</td>
<td>*</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

*As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals in accordance with applicable provisions of paragraph (i).

SECTION 4: FIRST-AID MEASURES

Description of first-aid measures

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Remove victim to fresh air if coughing or difficulty in breathing is experienced. Consult a physician if symptoms persist or worsen. Administer oxygen or artificial respiration as needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Flush eyes for at least 15 minutes in an eyewash station. Consult a physician.</td>
</tr>
<tr>
<td>Skin</td>
<td>Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. Consult a physician.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Call a poison center immediately.</td>
</tr>
</tbody>
</table>

Important symptoms, acute and delayed
Causes irritation to the eyes.
Ingestion is likely to cause adverse effects on gastrointestinal tract.
Causes respiratory tract irritation.
Causes moderate skin irritation.

Recommendations for immediate medical care and special treatment
See listed first-aid procedures. No information available for special treatment. Treat according to symptoms.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and unsuitable extinguishing media
Use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Specific hazards arising from the product
Carbon monoxide is expected to be the primary hazard.

Special protective equipment/precautions for fire-fighters
Fire-fighters may wear self-contained breathing apparatus if necessary.
SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions
Ensure adequate ventilation.
Avoid inhalation of vapors.
Avoid contact with skin and eyes.
Eliminate sources of ignition.
Take precautionary measures against static electricity.

Protective equipment
Wear protective gloves, impermeable aprons and splash-proof goggles.

Emergency procedures
See information in sub-section above.

Methods and materials for containment and cleanup
Eliminate sources of ignition.
Take precautionary measures against static electricity.
Contain and soak up spill with inert absorbent material. Small spills can be cleaned with a damp sponge.
Discard absorbents and other contaminated solids in a suitable trash receptacle.
Dispose absorbents and other contaminated solids as a hazardous waste.
Wash contaminated area with soap and water.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes.
Avoid inhalation of vapors.
Wear protective gloves, impermeable aprons and splash-proof goggles.
With large volumes material will accumulate static. Use proper grounding procedures for storage and when moving to transfer containers.

Conditions for safe storage including incompatibilities
Keep containers tightly closed.
Store at room temperature.
Consult local fire codes for additional storage information.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS#</th>
<th>Exposure Limit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Red 72</td>
<td>10114-26-6</td>
<td>None established</td>
<td>-</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>OSHA (8 hr TWA)</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Salts</td>
<td>Trade secret</td>
<td>None established</td>
<td>-</td>
</tr>
<tr>
<td>Inorganic acid (&lt;0.1%)</td>
<td>Trade secret</td>
<td>None established at this %</td>
<td>-</td>
</tr>
</tbody>
</table>

Appropriate engineering controls
Good general room ventilation should be provided so that exposure limits are not exceeded.
If required provide local exhaust ventilation to control vapors.
Personal protective measures

| **Respiratory protection** | None needed for this concentration. When risk assessment shows one is necessary, wear respirator with organic vapor cartridge. |
| **Eye protection** | Use splash-proof goggles. Wear face shield if splashing hazard exists. An eyewash station must be nearby, no more than 10 seconds away. |
| **Skin protection** | Wear nitrile or chemical resistant gloves. Do not use latex surgical gloves for protection. Safety shower must be nearby, no more than 10 seconds away. |

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Red liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight alcohol odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.8-7.2</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>97°F (36.1°C) closed cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Complete in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No information available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available</td>
</tr>
</tbody>
</table>

**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity**
No hazardous reactions if stored and handled as indicated.

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reaction**
The product is chemically stable.

**Conditions to avoid**
Heat, flames and sparks. Temperatures greater than flash point.

**Incompatible materials**
Strong oxidants.

**Hazardous decomposition products**
No hazardous decomposition products if stored and handled as indicated.
SECTION 11: TOXICOLOGICAL INFORMATION

Likely routes of exposure
   Skin, eye, inhalation.

Symptoms related to physical, chemical and toxicological characteristics
   The following statements are based on data for undiluted ethanol.

   Causes irritation of the respiratory tract.
   Eye and skin contact causes irritation.

Delayed and immediate effects
   See information in sub-section above.

Chronic effects from short- and long-term exposure
   No information available for this product.

Numerical measures of toxicity
   The following data are for 100% ethanol.

<table>
<thead>
<tr>
<th>Test</th>
<th>Duration</th>
<th>Organism</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, inhalation (rat)</td>
<td>96 hours</td>
<td>Oncorhynchus mykiss</td>
<td>LC_{50} &gt; 10,000 mg/l</td>
</tr>
<tr>
<td></td>
<td>96 hours</td>
<td>Pimephales promelas</td>
<td>LC_{50} &gt; 13,400 mg/l</td>
</tr>
<tr>
<td>Acute toxicity, oral (human)</td>
<td></td>
<td></td>
<td>LDLo : 1400 mg/kg BWT</td>
</tr>
</tbody>
</table>

Assessment of other acute effects
   Specific target organ toxicity, single exposure (STOT-SE): causes respiratory irritation (lungs).

Carcinogenicity
   None as defined by 29 CFR 1900.1200.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
   The following data are from studies using full strength ethanol.

<table>
<thead>
<tr>
<th>Test</th>
<th>Duration</th>
<th>Organism</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity-fish</td>
<td>96 hours</td>
<td>Oncorhynchus mykiss</td>
<td>LC_{50} &gt; 10,000 mg/l</td>
</tr>
<tr>
<td></td>
<td>96 hours</td>
<td>Pimephales promelas</td>
<td>LC_{50} &gt; 13,400 mg/l</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>96 hours</td>
<td>Chlorella vulgaris</td>
<td>1,000 mg/l (growth inhibition)</td>
</tr>
<tr>
<td>Toxicity to microorganisms</td>
<td>34 days</td>
<td>Pseudomonas putida</td>
<td>6,500 mg/l</td>
</tr>
</tbody>
</table>

Persistence and degradability
   Biodegradation is expected.

Bioaccumulative potential
   Bioaccumulation is unlikely.

Mobility in soil
   No information available.

Other adverse effects
   No information available.
SECTION 13: DISPOSAL CONSIDERATIONS

Drain disposal may be possible with the permission of local wastewater treatment authorities. Otherwise contact a licensed professional waste disposal service to dispose of this material. Proper waste disposal is the generator's responsibility. Follow federal, state (provincial) and local regulations.

SECTION 14: TRANSPORT INFORMATION

DOT (USA) and IATA
Proper Shipping Name: Flammable liquid, n.o.s. (ethanol)
Identification Number: UN1993
Hazard Class: 3
Packing Group: III

Marine pollutant
No information available.

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard
This product is considered hazardous in accordance with 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA (National Fire Protection Association) Rating
General note: The ratings provide information to emergency personnel on the fire hazards associated with the chemical. It is not descriptive of hazards under normal conditions of occupational use.

<table>
<thead>
<tr>
<th>Health</th>
<th>1</th>
<th>Materials that, under emergency conditions, can cause significant irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>2</td>
<td>Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Under normal conditions, these materials would not form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating they could release vapor in sufficient quantities to produce hazardous atmospheres with air.</td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
<td>Materials that in themselves are normally stable, even under fire conditions.</td>
</tr>
</tbody>
</table>

Disclaimer
Anatech Ltd. believes the information in the SDS was obtained from reliable sources. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn may be from sources other than direct test data on the substance itself. It is the user's responsibility to determine suitability of the product for his/her own use, and to assure proper use and disposal of it to protect the safety and health of employees and the protection of the environment.

Date of preparation
June 1, 2015