SAFETY DATA SHEET

Preparation Date: June, 2018

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier
Product Name AMN 1040B

Other means of identification
Chemical Family Aromatic diamine blend
Formula (C2H5)2(CH3)C6H(NH2)2

Recommended use of the chemical and restrictions on use
General function Curing chemical.
Uses advised against No information available

Company manufacture Forsch Polymer Corp.
3025 S. Wyandot st.
Englewood, Co 80110

For Non-Emergency 303-322-9611
Email forschpolymerco@aol.com

Emergency telephone number
Emergency Telephone Numbers 303-548-7716

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute Toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
<tr>
<td>Acute aquatic toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

Signal Word: Warning

Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Causes serious eye irritation
May cause damage to organs through prolonged or repeated exposure
Very toxic to aquatic life with long lasting effects

Emergency Overview

Page 1 / 8
Appearance Liquid  Color Clear, Yellow.  Odor Pungent

Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Avoid release to the environment

Response
Get medical advice/attention if you feel unwell
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF INHALED: Move to fresh air.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth
Collect spillage

Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other Information
Unknown Acute Toxicity 2.5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation 3.1. Substances.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyltoluenediamine</td>
<td>68479-98-1</td>
<td>30 – 95%</td>
</tr>
<tr>
<td>2,2,4 Trimethyl – 1,3 Pentanediol Disobutyrate</td>
<td>6846-50-0</td>
<td>5 – 50%</td>
</tr>
</tbody>
</table>

Note: The exact concentrations of the above listed chemicals are being withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures
Eye contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact Remove contaminated clothing and shoes. After contact with skin, wash immediately with plenty of water. Wash clothing before reuse. Seek medical advice.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, apply artificial respiration. Seek medical advice.
Ingestion
Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.

**Most important symptoms and effects, both acute and delayed**
Symptoms
Harmful in contact with skin. Harmful if swallowed. Causes eye irritation.

**Indication of any immediate medical attention and special treatment needed**
Notes to Physician
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media**
Suitable extinguishing media
Carbon dioxide, dry chemicals, foam, water spray (mist).

Unsuitable Extinguishing Media
No information available.

**Specific Hazards Arising from the Chemical**
Combustion/explosion hazards
In case of fire and/or explosion do not breathe fumes.

Hazardous Combustion Products
Oxides of carbon and nitrogen.

**Explosion Data**
Sensitivity to mechanical impact
None.

Sensitivity to static discharge
None.

**Protective Equipment and Precautions for Firefighters**
Wear self-contained breathing apparatus and protective suit. Do not breathe smoke or vapors.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**
Personal precautions
Wear suitable gloves and eye/face protection.

**Environmental Precautions**
Environmental precautions
Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams. May require excavation of contaminated soil.

**Methods and material for containment and cleaning up**
Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Cleaning up
Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
Handling
Do not breathe vapours or spray mist. Mechanical ventilation is recommended. Local exhaust is needed at source of vapours.

**Conditions for safe storage, including any incompatibilities**
Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. To maintain quality:
Keep away from heat. Keep away from direct sunlight.

Incompatible Materials
Strong acids. Strong oxidizing agents.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**
Exposure Guidelines and controls

Ensure adequate ventilation, especially in confined areas. See Extended Safety Data Sheet.

Individual protection measures, such as personal protective equipment

Eye/face Protection
Chemical goggles or face shield with safety glasses.

Skin Protection
DERMAL PROTECTION: Dermal exposure is considered the primary route of exposure. BODY: A protective apron or suit such as polyethylene tyvek or equivalent should be used to minimize exposure from splashes.

Respiratory protection
Approved organic vapor respirator when exposed to vapors from heated material. Approved supplied-air respirator, in case of emergency.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Liquid
Color Clear, Yellow Amber-Dark
Odor Pungent
Odor Threshold No information available
Molecular Weight No information available
pH Not available
Melting point/freezing No information available
point Boiling Point/Range 308.3 °C / 587 °F (1013 hPa)
Flash Point 169 °C / 336 (PMCC)
Evaporation Rate No information available
Flammability (solid, gas) No information available
Flammability Limit in Air
  Upper flammability limit: No information
  Lower flammability limit: available No
Vapor Pressure information available
Vapor Density 0.000971 Pa (25°C) 6.2
Relative density 1.02 (20°C)
Solubility(ies)
  Water Solubility 1% (20°C)
  Solubility in other No information available
  solvents Partition coefficient 1.16 (25 °C)
Autoignition temperature No information available
Decomposition temperature No information available
Viscosity, kinematic Dynamic viscosity 286 mPa.s (20°C)
Explosive Properties None
Oxidizing Properties None

10. STABILITY AND REACTIVITY

Reactivity Hazard No data available
Stability Stable under normal conditions.
Hazardous Reactions No hazardous reaction expected under normal handling.
Hazardous Polymerization None under normal processing.
Conditions to Avoid  
Exposure to air.

Materials to avoid  
Strong acids. Strong oxidizing agents.

Hazardous decomposition products  
Carbon oxides. Nitrogen oxides (NOx).

---

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation  
Not an expected route of exposure.

Eye contact  
Irritating to eyes.

Skin Contact  
Harmful if absorbed through skin.

Ingestion  
Harmful if swallowed.

Potential Health Effects

Acute Effects

Skin corrosion/irritation  
Skin irritation: Slightly irritating but not sufficient for classification.

Serious eye damage/eye  
Eye irritation: Irritating to eyes. (rabbit).

irritation Respiratory irritation  
No data available

Sensitization  
Not sensitizing. (guinea pig).

Chronic Effects

Mutagenic Effects  
In vitro mutagenicity test: Positive and negative results in bacterial and mammalian cells in the presence of metabolic activation. In vivo mutagenicity tests: Mouse micronucleus test • negative. Dominant lethal test, rat, negative.

Carcinogenicity  
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>ACGIH Carcinogens</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA Carcinogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyltoluenediamine</td>
<td>68479-98-1</td>
<td>NL</td>
<td>NL</td>
<td>NL</td>
<td>NL</td>
</tr>
<tr>
<td>2,2,4 Trimethyl - 1,3 Pentanediol Disobutyrate</td>
<td>6846-50-0</td>
<td>NL</td>
<td>NL</td>
<td>NL</td>
<td>NL</td>
</tr>
</tbody>
</table>

Reproductive Effects  
No effect on reproductive organs in repeated dose studies in rats.

STOT - single exposure  
No information available.

STOT - repeated exposure  
Causes damage to organs through prolonged or repeated exposure.

Chronic Effects  
A two year feeding study in rats showed DETDA cause effects in the pancreas, liver, thyroid and eyes. An increase in the number of tumors in the liver and thyroid of male rats and in the liver and possibly mammary gland of female rats was found.

Target Organ Effects  
Pancreas.

Aspiration hazard  
No information available.

Numerical measures of toxicity

Product Information  
No information available

Unknown Acute Toxicity  
2.5% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)  
757 mg/kg

ATEmix (dermal)  
1128 mg/kg

LD50 Oral:  
Rat Oral LD50: 738 mg/kg

LD50 Dermal:  
Rabbit Dermal LD50: > 2000 mg/kg
Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>Rat Oral LD50:</th>
<th>Rabbit Dermal LD50:</th>
<th>Rat Inhalation LC50:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyltoluenediamine</td>
<td>738 mg/kg</td>
<td>&gt;2000 mg/kg</td>
<td>NA</td>
</tr>
<tr>
<td>2,2,4 Trimethyl – 1,3 Pentanediol Diisobutyrate 6846-50-0</td>
<td>N/A</td>
<td>NA</td>
<td>N/A</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae EC50/72h:</th>
<th>Freshwater Fish LC50/96h:</th>
<th>Water Flea EC50/48h:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyltoluenediamine</td>
<td>104 mg/l - Algae EC10/72h: 54 mg/l</td>
<td>&gt; 104 mg/l - Fish LC50/48h: 200 mg/l</td>
<td>5.8 mg/l - Water Flea LC50/48h: 0.5 mg/l</td>
</tr>
<tr>
<td>2,2,4 Trimethyl – 1,3 Pentanediol Diisobutyrate 6846-50-0</td>
<td>NA</td>
<td>6mg/l</td>
<td>1.46mg/L</td>
</tr>
</tbody>
</table>

Persistence/Degradability


Bioaccumulation/ Accumulation

No information available.

Mobility in Environmental Media

The substance is expected to partition primarily to soil and water. Koc = 32-551 l/kg (QSAR estimate). Henry's law constant = 0.000266. (20 °C). (QSAR estimate).

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method
Dispose in a safe manner in accordance with local/national regulations. Absorb and incinerate.

Contaminated Packaging

Do not reuse container.
### 14. TRANSPORT INFORMATION

**DOT**

- **Proper Shipping Name**: Diethyltoluenediamine
- **Hazard Class**: 9
- **UN No.**: UN3082
- **Packing Group**: III

**IMDG/IMO**

- **IMO Class**: 9
- **Packing Group**: III
- **UN-No**: 3082
- **IMO Labelling and Marking**: 9 + Marine Pollutant Marking
- **Proper Shipping Name**: Environmentally hazardous substance liquid, N.O.S. (Diethyltoluenediamine)
- **EmS**: F-A, S-F
- **Marpol - Annex II**: Not determined
- **Marpol - Annex III**: Marine Pollutant
- **Transport Description**: UN 3082 Environmentally hazardous substance liquid, N.O.S. (Diethyltoluenediamine), 9, III, Marine pollutant

**IATA/ICAO**

- **IATA/ICAO Class**: 9
- **Packing Group**: III
- **UN-No**: 3082
- **IATA/ICAO Labelling/Marking**: 9 + 'Environmentally hazardous substance' mark
- **Passenger Aircraft**
- **Cargo aircraft only**
- **Proper shipping name**: Environmentally hazardous substance liquid, N.O.S. (Diethyltoluenediamine)
- **Transport Description**: UN 3082 Environmentally hazardous substance liquid, N.O.S. (Diethyltoluenediamine), 9, III

### 15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>AICS</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>ROHS</th>
<th>PICCS</th>
<th>IECSC</th>
<th>NZIoC</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMN 1040B</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

**SARA 311/312 Hazardous Categorization**

- Acute Health Hazard: Yes
- Chronic Health Hazard: Yes
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

**Reportable and Threshold Planning Quantities**

The following components have RQs and/or TPQs under SARA and/or CERCLA

**State Right-to-Know**

This product contains the following chemicals regulated in the states listed below. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**California Prop 65**: To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health 2</th>
<th>Flammability 1</th>
<th>Instability 0</th>
<th>Physical Hazards -</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health 2</td>
<td>Flammability 1</td>
<td>Physical Hazards 0</td>
<td></td>
</tr>
</tbody>
</table>

Preparation Date : May 2015
Revision Date: May 2015

Disclaimer:
The information contained herein is accurate to the best of our knowledge. The Company makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.

End of Safety Data Sheet