Section 1 – Identification

Product Identifier: Dyna-Plex 21C Semi-Kut 60
Other means of identification: Not available
Recommended use: Metalworking

Supplier Information:
Miller Industrial Fluids, A PetroChoice Company
1751 W. Raymond Street
Indianapolis, IN 46221
Phone: (317) 634-7300
Fax: (317) 636-6761
Email: customerservice@millerif.com
Website: www.petrochoice.com
International: +1-703-527-3887
Hours of Operation: 8am – 5pm

Section 2 – Hazards Identification

GHS Classification:
- Serious Eye Damage/Eye Irritation – Category 2
- Skin Corrosion/Irritation – Category 2

GHS Label Elements

Hazard pictograms:

Signal Word: Warning
Hazard Statement: Causes serious eye irritation.
Causes skin irritation.

Precautionary Statements

Prevention: Wear protective gloves, Wear eye or face protection. Wash thoroughly after handling.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, seek medical advice/attention. Take off contaminated clothing and wash before reuse.
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, seek medical attention.

Storage: None.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other Hazards: None known.
Section 3 – Composition/Information on Ingredients

Substance/Mixture: Mixture
Chemical Name: None
Other means of Identification: None
CAS number/other Identifiers: None

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Percent</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanolamine and triethanolamine borate</td>
<td>5-10</td>
<td>68512-53-8</td>
</tr>
<tr>
<td>2-Methylpentane-2,4-diol</td>
<td>1-5</td>
<td>107-41-5</td>
</tr>
<tr>
<td>2,2'-Oxybisethanol</td>
<td>0.1-1</td>
<td>111-46-6</td>
</tr>
<tr>
<td>2,2',2&quot;-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol</td>
<td>1-5</td>
<td>4719-04-4</td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>0.1-1</td>
<td>55406-53-6</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>5-10</td>
<td>102-71-6</td>
</tr>
</tbody>
</table>

Section 4 – First Aid Measures

Description of necessary first aid measures:

**Eye Contact:** Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if safe and possible to do. Protect unharmed eye. Keep impacted eye(s) wide open while rinsing. Seek medical attention.

**Inhalation:** Move person to an area with fresh air. If breathing has stopped, give artificial respiration and call for emergency services immediately.

**Skin Contact:** Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water. If symptoms persist, call a physician.

**Ingestion:** Rinse mouth with plenty of water and drink plenty of water afterwards. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If large quantities are swallowed, call a physician immediately.

**Most Important Symptoms/Effects, Acute and Delayed:**

- **Eyes:** May cause pain, redness, and excessive tearing.
- **Skin:** May cause inflammation.

**Indication of any immediate medical attention and special treatment needed:**

If necessary, treat symptomatically.

Section 5 – Fire-fighting Measures

**Extinguishing Media**

Suitable Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂)

Unsuitable Extinguishing Media: None known.
Special Hazards arising from this mixture: Thermal decomposition products include oxides of carbon and nitrogen.

Special protective equipment and precautions for firefighters: Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Section 6 – Accidental Release Measures
Personal Precautions, Protective Equipment, Emergency Procedures: Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and Materials for Containment and Cleaning up: Stop the flow of material, if this is without risk. Dike the spilled material, where possible. Absorb with an inert absorbent material and place in a suitable container for disposal. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not let product enter drains, sewer, rivers or lakes.

Section 7 – Handling and Storage
Precautions for Safe Handling: Wash hands after handling and before eating. Do not get this material in contact with eyes. Avoid contact with skin. Remove and wash contaminated clothing promptly.

Conditions for Safe Storage: Keep container tightly closed in a dry and well-ventilated place.

Section 8 – Exposure Controls/Personal Protection
Occupational Exposure Limits: ACGIH

<table>
<thead>
<tr>
<th>Material</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylpentane-2,4-diol</td>
<td>CEIL</td>
<td>121 mg/m³</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td>2,2’-Oxybisethanol</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: Adequate ventilation should be provided whenever the material is heated or mists are generated. Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
Individual Protection Measures, such as Personal Protective Equipment:
Eye/Face Protection: Goggles/face shield are recommended.

Hand Protection: Neoprene or nitrile-butyl-rubber gloves are recommended.

Skin & Body Protection: Chemical resistant long-sleeve clothing is recommended. Launder contaminated clothing before reuse.

Respiratory Protection: If vapors/mist concentration exceed the exposure limit(s), an appropriate certified respirator must be used.

General Hygiene Considerations: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Section 9 – Physical and Chemical Properties
Appearance: Pale yellow
Physical State: Liquid
Odor: Mild
Odor Threshold: Not Available
pH: 9.5 - 10
Melting/Freezing Point: 32°F (0°C)
Initial Boiling Point: 212°F (100°C)
Flash Point: None prior to boiling.

Evaporation Rate: 1 (Water=1)
Flammability (solid,gas): Not Available
Upper/Lower Flammability or Explosive Limits

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability Limit</td>
<td></td>
</tr>
<tr>
<td>Lower %:</td>
<td>Not Available</td>
</tr>
<tr>
<td>Upper %:</td>
<td>Not Available</td>
</tr>
<tr>
<td>Explosive Limit</td>
<td></td>
</tr>
<tr>
<td>Lower %:</td>
<td>Not Available</td>
</tr>
<tr>
<td>Upper %:</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Vapor Pressure: Not Available
Vapor Density: Not Available
Relative Density: 1.01 @60°F (15.56°C)
Solubility (water): Complete
Partition Coefficient (n-octanol/water): Not Available
Auto-ignition Temperature: Not Available

Decomposition Temperature: Not Available
Section 10 – Stability and Reactivity
Reactivity: No data available.
Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: None known.
Incompatible Materials: Strong acids and oxidizing agents.
Hazardous Decomposition Products: Oxides of carbon and nitrogen.

Section 11 – Toxicological Information
Information on Likely Routes of Exposure
Ingestion: May cause gastrointestinal irritation and discomfort if swallowed. Do not induce vomiting. Vomiting may increase risk of product aspiration.

Inhalation: May cause irritation of the eyes and respiratory tract.
Skin Contact: May cause irritation of the skin.
Eye Contact: May cause irritation of the eyes.
Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Not Available

Information on Toxicological Effects
Acute Toxicity:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylpentane-2,4-diol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3700 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2,2’-Oxybisethanol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>11890 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>6400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2,2’,2”-(Hexahydro-1,3,5-triazine-1,3,5-triy)triethanol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;763 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1470 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Skin Corrosion / Irritation: May be irritating to skin.
Serious Eye Damage / Eye Irritation: May cause serious damage to eyes.
Respiratory or Skin Sensitization: No data available.
Respiratory Sensitization:
Dyna-Plex 21C Semi-Kut 60

**Skin Sensitization:** No data available.

**Mutagenicity:** No data available.

**Carcinogenicity:** No data available.

**Reproductive Toxicity:** No data available.

**Specific Target Organ Toxicity**

- **Single Exposure**
  - **Specific Target Organ Toxicity** Not classified

- **Repeated Exposure**
  - **Aspiration Hazard** Not classified

**Potential Chronic Health Effects:**

- **General:** No data available.

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**Section 12 – Ecological Information**

**Ecotoxicity:**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylpentane-2,4-diol</td>
<td>Acute EC50 2800000 to 3200000 µg/L Fresh water</td>
<td>Crustaceans - Ceriodaphnia reticulata - Larvae</td>
<td>48 hours</td>
</tr>
<tr>
<td>2,2’ -Oxybisethanol</td>
<td>Acute EC50 3200000 µg/L Fresh water</td>
<td>Daphnia - Daphnia magna - Larvae</td>
<td>48 hours</td>
</tr>
<tr>
<td>2,2',2&quot;-(Hexahydro-1,3,5-triazine-1,3,5-triyl)trietanol</td>
<td>Acute LC50 10000000 µg/L Marine water</td>
<td>Fish - Menidia beryllina</td>
<td>96 hours</td>
</tr>
<tr>
<td>3-Iodo-2-propynyl butylcarbamate</td>
<td>Acute LC50 32000 ppm Fresh water</td>
<td>Fish - Gambusia affinis - Adult</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 26.1 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 39 ppm Fresh water</td>
<td>Fish - Lepomis macrochirus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.16 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 500 ppb Fresh water</td>
<td>Crustaceans - Hyalella azteca</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 67 ppb Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 8.4 ppb</td>
<td>Fish - Pimephales promelas</td>
<td>35 days</td>
</tr>
</tbody>
</table>

**Persistance and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** No data available.

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**Section 13 – Disposal Considerations**

**Disposal Instructions:** Disposal of waste material should comply with all local, state, federal and provincial environmental regulations. See Section 7 for safe handling procedures and section 8 for personal protective equipment recommendations. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Empty containers or liners may retain some product residues. Follow label warnings even after container is emptied. Avoid contact of any spilled material or runoff with soil, waterways, drains and sewers.
Section 14 – Transport Information
DOT: Not regulated as a dangerous good.
IMDG: Not regulated as a dangerous good.

Section 15 – Regulatory Information
U.S. Federal Regulations: This product is considered hazardous as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

United States Inventory: All components are listed or exempted.
(TSCA 8b)

SARA 302/304:
Composition/Information on Ingredients
No products were found

SARA 311/312 Hazard Categories:
Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire Hazard: No
Sudden Release of Pressure Hazard: No
Reactive Hazard: No

SARA 313:
This material does not contain any chemical components that exceed the threshold reporting levels established by SARA Title III, Section 313.

State Regulations:
California Proposition 65
Warning: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Cancer</th>
<th>Reproductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethanolamine</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Section 16 – Other Information
Date of Preparation: 3/10/15
Date of Last Revision: 3/10/15
Version: 1.0
Notice to reader:
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release. The information is not considered as a warranty or quality specification. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet