1. IDENTIFICATION

Product Identifier
Product Name CARBrid

Other Means of Identification
Product Code 285600

Recommended use of the Chemical and Restrictions on Use
Recommended Use Carbon build-up remover. For industrial use.

Details of the Supplier of the Safety Data Sheet
Midlab, Inc.
140 Private Brand Way
Athens, TN 37303

Emergency Telephone Number
Company Phone Number Phone: 1-423-337-3180
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Yellow Physical State Liquid Odor Aromatic

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity – Oral</td>
<td>Category 5</td>
</tr>
<tr>
<td>Acute Toxicity – Dermal</td>
<td>Category 5</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious Eye Irritation/Damage</td>
<td>Category 2 Sub-category A</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Category 1 Sub-category B</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity – Single Exposure</td>
<td>Category 3</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity – Repeated Exposure</td>
<td>Category 2</td>
</tr>
<tr>
<td>Aspiration Toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Aquatic Toxicity – Acute</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Signal Word
Danger

Hazard Statements
May be harmful if swallowed.
May be harmful in contact with skin.
Causes skin irritation.
May damage fertility or the unborn child.
May cause respiratory irritation, drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

Precautionary Statements – Response
IF exposed or concerned: Get medical advice/attention.
IF ON SKIN: Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER or doctor/physician 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
SPECIFIC TREATMENT: Remove from exposure and treat symptoms.

Precautionary Statements - Storage
Store locked up.
Store in a well-ventilated place.
Keep container tightly closed.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Other Hazards
None known.

Unknown Acute Toxicity
None known.

Hazards Not Otherwise Classified (HNOC)
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Aromatic</td>
<td>64742-94-5</td>
<td>15-40</td>
</tr>
<tr>
<td>N-Methyl-2-Pyrrolidone</td>
<td>872-50-4</td>
<td>15-40</td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>10-30</td>
</tr>
<tr>
<td>Benzene, 1-Chloro-4 (Trifluoromethyl)</td>
<td>98-56-6</td>
<td>10-30</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>3-7</td>
</tr>
<tr>
<td>1-Methoxy-2-Propanol</td>
<td>107-98-2</td>
<td>1-5</td>
</tr>
<tr>
<td>Monooethanolamine</td>
<td>141-43-5</td>
<td>1-5</td>
</tr>
<tr>
<td>Propylene Glycol Phenol Ether</td>
<td>770-35-4</td>
<td>1-5</td>
</tr>
<tr>
<td>Tall Oil Fatty Acid</td>
<td>8002-26-4</td>
<td>1-5</td>
</tr>
</tbody>
</table>

*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.*

4. FIRST-AID MEASURES

First Aid Measures

General Advice
If exposed or concerned: Get medical advice/attention.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin Contact
Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation
Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if necessary.

Ingestion
Rinse mouth. Drink plenty of water. Call a physician or poison control center immediately. Never give anything to an unconscious person.

Most Important Symptoms and Effects

Symptoms
Aspiration hazard. Potential health effects – target organs, central nervous system, kidneys and liver. Vapors may cause headache, fatigue, dizziness and nausea.

Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable Extinguishing Media
Straight streams of water.

Specific Hazards Arising from the Chemical
Vapors are heavier than air. Vapors may travel across the ground and reach ignition sources causing a flashback fire danger.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions
Use personal protection recommended in Section 8.

Environmental Precautions
Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

Methods for Containment
Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up
Collect in a clean, dry waste container for disposal. Dispose of in accordance with federal, state and local regulations. Absorb or cover with earth, sand or other non-combustible material and transfer to containers for later disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Avoid breathing vapors or mists. Contaminated work clothing should not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, including any Incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Protect from freezing.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
No exposure limits noted for ingredient(s).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Aromatic</td>
<td>-</td>
<td>TWA: 400 mg/m3</td>
<td>-</td>
</tr>
<tr>
<td>N-Methyl-2-Pyrrolidone</td>
<td>-</td>
<td>TWA: 10,000 ppm</td>
<td>-</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>TWA: 200 ppm</td>
<td>TWA: 400 ppm</td>
<td>-</td>
</tr>
<tr>
<td>1-Methoxy-2-Propanol</td>
<td>TWA: 50 ppm</td>
<td>STEL: 100 ppm</td>
<td>-</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>TWA: 3 ppm</td>
<td>STEL: 6 ppm</td>
<td>-</td>
</tr>
<tr>
<td>Tall Oil Fatty Acid</td>
<td>TWA: 5 mg/m3 (Respirable)</td>
<td>STEL: 10 mg/3 (Respirable)</td>
<td>TWA: 5 mg/m3 (Respirable)</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Engineering Controls Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Wear safety glasses or goggles when using this product.

Skin and Body Protection Wear chemical resistant gloves when using this product.

Respiratory Protection No protective equipment is needed under normal use conditions.

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

Physical State Liquid
Appearance Clear
Color Yellow

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>&lt; 0 °C / &lt;32 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not established</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>n/a-liquid</td>
<td></td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble in water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Not determined</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not determined</td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to Avoid

Incompatible Materials
Strong oxidizers, strong acids, strong reducing agents.

Hazardous Decomposition Products
When exposed to fire, produces oxides of carbon, smoke, fumes, oxides of nitrogen, chlorine gases, and fluorine gases.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact
Avoid contact with eyes.

Skin Contact
Avoid contact with skin.

Inhalation
Avoid breathing vapors or mists.

Ingestion
May be harmful if swallowed.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 4688 mg/m3 4h vapor (Rat)</td>
</tr>
<tr>
<td>Aromatic 64742-94-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N-Methyl-2-Pyrrolidone 872-50-4</td>
<td>= 3914 mg/kg (Rat)</td>
<td>= 8000 mg/kg (Rabbit)</td>
<td>&gt; 5100 ppm 4h (Rat)</td>
</tr>
<tr>
<td>Benzyl Alcohol 100-51-6</td>
<td>= 1620 mg/kg (Rat)</td>
<td>= 2000 mg/kg (Rabbit)</td>
<td>&gt; 5000 mg/m3 4h (Rat)</td>
</tr>
<tr>
<td>Benzene, 1-Chloro-4 (Trifluoromethyl) 98-56-6</td>
<td>&gt; 6800 mg/kg (Rat)</td>
<td>&gt; 2700 mg/kg (Rabbit)</td>
<td>&gt; 4479 ppm (Rat)</td>
</tr>
<tr>
<td>Isopropanol 67-63-0</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 5000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>1-Methoxy-2-Propanol 107-98-2</td>
<td>= 6040 mg/kg (Rat)</td>
<td>= 12900 mg/kg (Rat)</td>
<td>= 7000 ppm 7h (Rat)</td>
</tr>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>= 1089 mg/kg (Rat)</td>
<td>= 2504 mg/kg (Rat)</td>
<td>&gt; 1.48 mg/L 4h vapor (Rat)</td>
</tr>
<tr>
<td>Propylene Glycol Phenol Ether 770-35-4</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>&gt; 5.4 mg/L 4h dust/mist (Rat)</td>
</tr>
<tr>
<td>Tall Oil Fatty Acid 8002-26-4</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>-</td>
</tr>
</tbody>
</table>

Information on Physical, Chemical and Toxicological Effects

Symptoms
Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity
Not classifiable as a human carcinogen.
Aspiration Hazard  
May be fatal if swallowed and enters airways.

Numerical Measures of Toxicity  
Not determined

Unknown Acute Toxicity  
None known.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Aromatic</td>
<td>-</td>
<td>&lt;5 mg/L 96h Oncorhynchus mykiss</td>
<td>-</td>
<td>3-10 mg/L 48h Daphnia magna</td>
</tr>
<tr>
<td>64742-94-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N-Methyl-2-Pyrrolidone</td>
<td>-</td>
<td>&gt; 500 mg/L Leuciscus idus 96h</td>
<td>&gt; 9000 mg/L Bacteria</td>
<td>&gt; 1000 mg/L 24h Daphnia magna</td>
</tr>
<tr>
<td>872-50-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzyl Alcohol</td>
<td>100-51-6</td>
<td>460-770 mg/L 96h Fathead minnow</td>
<td>= 71.4 mg/L Phytobacterium phosphoreum</td>
<td>400 mg/L 48h Daphnia magna</td>
</tr>
<tr>
<td>Benzene, 1-Chloro-4 (Trifluoromethyl) 98-56-6</td>
<td>500 mg/L 72h Green &amp; Blue-Green Algae</td>
<td>= 12 mg/L 96h Bluegill minnow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isopropanol</td>
<td>&gt; 100mg/L Algae</td>
<td>&gt; 100 mg/L</td>
<td>-</td>
<td>&gt; 100 mg/L</td>
</tr>
<tr>
<td>67-63-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Methoxy-2-Propanol 107-98-2</td>
<td>-</td>
<td>&gt; 1000 mg/L 96h Salmon</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Monoethanolamine 141-43-5</td>
<td>2.5 mg/L Pseudokirchneriella subcapitata</td>
<td>= 349 mg/L 96h Cyprinus carpio</td>
<td>&gt; 1000 mg/L activated sludge</td>
<td>65 mg/L 48h Daphnia magna</td>
</tr>
<tr>
<td>Propylene Glycol Phenol Ether 770-35-4</td>
<td>&gt; 100 mg/L 72h Desmodesmus subspicatus</td>
<td>280 mg/L 96h Pimephales promelas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tall Oil Fatty Acid 8002-26-4</td>
<td>&gt; 2000 mg/L 72h Desmodesmus subspicatus</td>
<td>&gt; 100 mg/L 96h</td>
<td>-</td>
<td>5000 mg/L 48h Daphnia magna</td>
</tr>
</tbody>
</table>

Persistence/Degradability  
Not determined.

Bioaccumulation  
Not determined.

Mobility  
Not determined.

Other Adverse Effects  
Not determined.

### 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Disposal of Wastes**
Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**
Disposal should be in accordance with applicable regional, national and local laws and regulations.

### 14. TRANSPORT INFORMATION

**Note**

**DOT**
Not regulated.
IATA
Not regulated

IMDG
Marine Pollutant
This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories
Canada – Domestic Substances List (DSL) All ingredients are listed or exempt.
TSCA (Toxic Substances Control Act) All ingredients are listed or exempt.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes

SARA 313

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>SARA 313 – Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Methyl-2-Pyrrolidone</td>
<td>872-50-4</td>
<td>15-40</td>
<td>1.0</td>
</tr>
</tbody>
</table>

US State Regulations

U.S. State Right to Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>State List</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Methyl-2-Pyrrolidone</td>
<td>MA, NJ, PA, CAP65</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>NJ, PA</td>
</tr>
<tr>
<td>1-Methoxy-2-Propanol</td>
<td>PA</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>PA</td>
</tr>
</tbody>
</table>

AZ – Arizona Ambient Air Quality Guidelines
CT – Connecticut Hazardous Air Pollutants
CA – California Director’s List of Hazardous Substances
CAP65 – California Prop 65
FL – Florida Substances List
ID – Idaho Non-Carcinogen Toxic Air Pollutants
IL – Illinois Toxic Air Contaminate- Carcinogenic
MA – Massachusetts Right to Know List
MN – Minnesota Hazardous Substances List
NJ – New Jersey Right to Know List
PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substances List
## 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

**Issue Date:** 14-Apr-2016  
**Revision Date:** 14-Apr-2016  
**Revision Note:** Version 1.0  

**Disclaimer**

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Keep Out of Reach of Children. For Industrial and Institutional Use Only.

*Denotes changes from last version.

End of Safety Data Sheet