Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
E-Tec 522-B

Product Use
water based. wax.

Details of the supplier of the safety data sheet
Electrochemical Products Inc.
17000 West Lincoln Ave
New Berlin, WI 53151
Phone: 262-786-9330
Emergency Phone #: Chemtrec #800-424-9300 (CCN7498)
E-mail: us-sales@epi.com
www.epi.com
Fax: 262-786-9403

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Skin Corrosion/Irritation - Category 1
Serious Eye Damage/Eye Irritation - Category 1
Carcinogenicity - Category 2
Specific Target Organ Toxicity - Repeated Exposure - Category 2 (lungs)

GHS Label Elements

Signal Word
Danger

Hazard Statement(s)
Causes severe skin burns and eye damage.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s)
Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.

Response
IF exposed or concerned: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy
to do. Continue rinsing.
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with
water/shower.
Wash contaminated clothing before reuse.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor.
Specific treatment (see label).

Storage
Store locked up.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards
Do not ingest. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Avoid
breathing vapor or mist. Use with adequate ventilation. In accordance with good industrial hygiene and
safety work practices, airborne exposures should be controlled to the lowest extent practicable. Keep
container closed.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>42-46</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Paraffin waxes and Hydrocarbon waxes</td>
<td>48-53</td>
</tr>
<tr>
<td>110-91-8</td>
<td>Morpholine</td>
<td>0.5-1</td>
</tr>
<tr>
<td>1333-86-4</td>
<td>Carbon black</td>
<td>2-4</td>
</tr>
</tbody>
</table>
Section 4 - FIRST AID MEASURES

Inhalation
If inhaled, immediately remove the affected person to fresh air.

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

Eyes
Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists, get medical attention.

Ingestion
If swallowed, give milk or water to dilute. Seek medical attention immediately. Never give anything by mouth to an unconscious person. Call a physician immediately.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
Dry chemical, foam, carbon dioxide, water fog.

Unsuitable Extinguishing Media
None identified.

Special Hazards Arising from the Chemical
None identified.

Hazardous Combustion Products
Carbon monoxide and carbon dioxides.

Advice for firefighters
None identified.

Fire Fighting Measures
Use methods suitable to fight surrounding fire.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear protective gloves and eye/face protection.

Methods and Materials for Containment and Cleaning Up
Contain the spill. Mop up or squeegee into container or absorb with inert material.

Environmental Precautions
Do not allow to enter sewers or waterways.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Wash thoroughly after handling. Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings on containers as if they were full.

Conditions for Safe Storage, Including any Incompatibilities
Store locked up.
Keep containers closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible materials (see Section 10).

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffin waxes and Hydrocarbon waxes</td>
<td>Trade Secret</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>2 mg/m3 TWA fume</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>2 mg/m3 TWA fume</td>
</tr>
<tr>
<td>Mexico:</td>
<td>2 mg/m3 TWA LMPE-PPT fume</td>
</tr>
<tr>
<td></td>
<td>6 mg/m3 STEL [LMPE-CT] fume</td>
</tr>
<tr>
<td>Morpholine</td>
<td>110-91-8</td>
</tr>
<tr>
<td>ACGIH:</td>
<td>20 ppm TWA</td>
</tr>
<tr>
<td>NIOSH:</td>
<td>20 ppm TWA; 70 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td>30 ppm STEL; 105 mg/m3 STEL</td>
</tr>
<tr>
<td></td>
<td>Potential for dermal absorption</td>
</tr>
<tr>
<td></td>
<td>1400 ppm IDLH (10% LEL)</td>
</tr>
<tr>
<td>Europe:</td>
<td>10 ppm TWA; 36 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td>20 ppm STEL; 72 mg/m3 STEL</td>
</tr>
</tbody>
</table>
OSHA (US): 20 ppm TWA; 70 mg/m3 TWA
prevent or reduce skin absorption

Mexico: 20 ppm TWA LMPE-PPT; 70 mg/m3 TWA LMPE-PPT
30 ppm STEL [LMPE-CT]; 105 mg/m3 STEL [LMPE-CT]

Skin - potential for cutaneous absorption

Carbon black 1333-86-4

ACGIH: 3 mg/m3 TWA inhalable fraction

NIOSH: 3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons) as PAH
1750 mg/m3 IDLH

OSHA (US): 3.5 mg/m3 TWA

Mexico: 3.5 mg/m3 TWA LMPE-PPT
7 mg/m3 STEL [LMPE-CT]

EU - Occupational Exposure (98/24/EC) - Binding Biological Limit Values and Health Surveillance Measures
There are no biological limit values for any of this product's components.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)
There are no biological limit values for any of this product's components.

Engineering Controls
Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection
Safety glasses. It is generally recognized that contact lenses should not be worn when working with chemicals because they may contribute to the severity of an eye injury.

Skin Protection
Wear rubber gloves, long sleeved shirt and trousers.

Respiratory Protection
Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Glove Recommendations
Wear rubber gloves.
Safety Data Sheet

Material Name: E-Tec 522-B

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Opaque liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild, characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>32 °F (0 °C)</td>
</tr>
<tr>
<td>Boiling Point Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>(Approx. equal to water)</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Completely</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Tan</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>212 °F</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity (water=1)</td>
<td>1 - 1.05</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Section 10 - STABILITY AND REACTIVITY

Reactivity
No known hazardous reactions.

Chemical Stability
This is a stable material.

Possibility of Hazardous Reactions
None identified. Hazardous polymerization will not occur.

Incompatible Materials
Strong oxidizing agents, acids.
Hazardous decomposition products
None identified. Carbon monoxide and carbon dioxide.

Thermal decomposition products
None identified.

**Section 11 - TOXICOLOGICAL INFORMATION**

Acute and Chronic Toxicity

**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and the following selected endpoints are published:

- Water (7732-18-5)
  - Oral LD50 Rat >90 mL/kg
- Paraffin waxes and Hydrocarbon waxes (Trade Secret)
  - Oral LD50 Rat >3750 mg/kg
- Dermal LD50 Rabbit >3600 mg/kg
- Morpholine (110-91-8)
  - Oral LD50 Rat 1050 mg/kg
  - Dermal LD50 Rabbit 310 - 810 mg/kg
- Inhalation LC50 Rat 8000 ppm 8 h
- Carbon black (1333-86-4)
  - Oral LD50 Rat >15400 mg/kg

Immediate Effects
No information on significant adverse effects.

Delayed Effects
No information on significant adverse effects.

Irritation/Corrosivity Data
No data available.

Respiratory Sensitization
No data available.

Dermal Sensitization
No data available.

Component Carcinogenicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morpholine</td>
<td>ACGIH: A4 - Not Classifiable as a Human Carcinogen</td>
</tr>
<tr>
<td></td>
<td>IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))</td>
</tr>
</tbody>
</table>
Carbon black | 1333-86-4  
ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans  
IARC: | Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))  
DFG: | Category 3B (could be carcinogenic for man, inhalable fraction)  
OSHA: | Present  

Germ Cell Mutagenicity  
No data available.  

Tumorigenic Data  
No data available.  

Reproductive Toxicity  
No data available.  

Specific Target Organ Toxicity - Single Exposure  
No data available.  

Specific Target Organ Toxicity - Repeated Exposure  
No data available.  

Aspiration hazard  
No data available.  

Medical Conditions Aggravated by Exposure  
No data available.  

---

**Section 12 - ECOLOGICAL INFORMATION**

**Component Analysis - Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morpholine</td>
<td>110-91-8</td>
</tr>
<tr>
<td>Fish:</td>
<td>LC50 96 h Lepomis macrochirus 350 mg/L [static]; LC50 96 h Oncorhynchus mykiss 375 - 460 mg/L; LC50 96 h Brachydanio rerio &gt;1000 mg/L [static]</td>
</tr>
<tr>
<td>Algae:</td>
<td>EC50 96 h Pseudokirchneriella subcapitata 28 mg/L [static] EPA</td>
</tr>
</tbody>
</table>

---

**Section 13 - DISPOSAL CONSIDERATIONS**

**Disposal Methods**
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
No Classification assigned.

TDG Information:
No Classification assigned.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations
None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.
All components are on the U.S. EPA TSCA Inventory List. Supplier(s) of proprietary component(s) have stated that their components appear on the Canadian DSL/NDSL.

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffin waxes and Hydrocarbon waxes</td>
<td>Trade Secret</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Morpholine</td>
<td>110-91-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the state of California to cause cancer

| Carbon black | 1333-86-4 |

| Carc: | carcinogen , 2/21/2003 (airborne, unbound particles of respirable size) |

Canada Regulations
This material is a controlled product under Canadian WHMIS regulations.

Canadian WHMIS Ingredient Disclosure List (IDL)
Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL.
Morpholine 110-91-8

1%

Carbon black 1333-86-4

1%

**Component Analysis - Inventory**

Water (7732-18-5)

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<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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Paraffin waxes and Hydrocarbon waxes (Trade Secret)

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<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
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Morpholine (110-91-8)

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</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>

Carbon black (1333-86-4)

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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Section 16 - OTHER INFORMATION**

**HMIS Rating**

Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

**NFPA Ratings**
Health: 1 Fire: 0 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.