

 Safety Data Sheet

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 Revision Date: 05/29/2015
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# **SECTION 1: IDENTIFICATION**

#### Product Identifier

Product Form: Mixture Product Name: Formical - 4

**Product Code:** 1214-1; 1214-5; 1214-32

### **Intended Use of the Product**

Use of the Substance/Mixture: No use is specified.

## Name, Address, and Telephone of the Responsible Party

#### Company

StatLab Medical Products 2090 Commerce Drive McKinney, TX 75069 800-442-3573

### www.statlab.com

#### **Emergency Telephone Number**

Emergency Number : CHEMTREC 800-424-9300 (USA & Canada) CHEMTREC 703-527-3887 (International) Non-transport 800-225-8867 (USA)

# SECTION 2: HAZARDS IDENTIFICATION

## **Classification of the Substance or Mixture**

| Classification (GHS LIS)                         |      |
|--|------|
| Classification (GHS-US)                          |      |
| Acute Toxicity 4 (Oral)                          | H302 |
| Acute Toxicity 4 (Inhalation:gas)                | H332 |
| Skin Corrosion 1B                                | H314 |
| Eye Damage 1                                     | H318 |
| Skin Sensitizer 1                                | H317 |
| Carcinogenicity 2                                | H351 |
| Specific Target Organ Toxicity Single Exposure 3 | H335 |
| Aquatic Acute 3                                  | H402 |
| Full text of H-phrases: see section 16           |      |
| Label Elements                                   |      |

#### GHS-US Labeling Hazard Pictograms (GHS-US)



| Signal Word (GHS-US)<br>Hazard Statements (GHS-US) | <ul> <li>Danger</li> <li>H302+H332 - Harmful if swallowed or if inhaled.</li> <li>H314 - Causes severe skin burns and eye damage.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H318 - Causes serious eye damage.</li> </ul>   |
|--|--|
| Precautionary Statements (GHS-US)                  | <ul> <li>H335 - May cause respiratory irritation.</li> <li>H351 - Suspected of causing cancer.</li> <li>H402 - Harmful to aquatic life.</li> <li>P201 - Obtain special instructions before use.</li> <li>P202 - Do not handle until all safety precautions have been read and understood.</li> <li>P260 - Do not breathe vapors, mist, or spray.</li> <li>P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.</li> <li>P270 - Do not eat, drink or smoke when using this product.</li> </ul> |
|  |  |

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- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection.

P301+P330+P331+P312 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a poison center or doctor if you feel unwell.

P303+P362+P364+P353 - IF ON SKIN (or hair): Take off contaminated clothing and wash it before reuse. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P403+P233+P405 - Store in a well-ventilated place. Keep container tightly closed. Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

### **Other Hazards**

May be corrosive to respiratory tract. This material contains methanol, which, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

Unknown Acute Toxicity (GHS-US) Not available

# SECTION 3: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| <u>Mixture</u><br>Name | Product Identifier | % (w/w) | Classification (GHS-US)                   |
|------------------------|--------------------|---------|---|
| Formic acid            | (CAS No) 64-18-6   | 23      | Flammable Liquid 4, H227                  |
|                        |                    |         | Acute Toxicity 4 (Oral), H302             |
|                        |                    |         | Acute Toxicity 3 (Inhalation:vapor), H331 |
|                        |                    |         | Skin Corrosion 1A, H314                   |
|                        |                    |         | Eye Damage 1, H318                        |
| Formaldehyde           | (CAS No) 50-00-0   | 4       | Acute Toxicity 3 (Oral), H301             |
|                        |                    |         | Acute Toxicity 3 (Dermal), H311           |
|                        |                    |         | Acute Toxicity 3 (Inhalation:gas), H331   |
|                        |                    |         | Skin Corrosion 1B, H314                   |
|                        |                    |         | Eye Damage 1, H318                        |
|                        |                    |         | Skin Sensitizer 1, H317                   |
|                        |                    |         | Carcinogenicity 2, H351                   |
|                        |                    |         | Aquatic Acute 2, H401                     |
| Methanol               | (CAS No) 67-56-1   | 1       | Flammable Liquid 2, H225                  |
|                        |                    |         | Acute Toxicity 3 (Oral), H301             |
|                        |                    |         | Acute Toxicity 3 (Dermal), H311           |
|                        |                    |         | Acute Toxicity 3 (Inhalation), H331       |
|                        |                    |         | Specific Target Organ Toxicity Single     |
|                        |                    |         | Exposure 1, H370                          |

Full text of H-phrases: see section 16

# **SECTION 4: FIRST AID MEASURES**

### Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. If you feel unwell, seek medical advice. **Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with plenty of water for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

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**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

#### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes severe skin burns and eye damage. Harmful if swallowed or if inhaled. May cause an allergic skin reaction. May cause respiratory irritation. Suspected of causing cancer.

**Inhalation:** Harmful if inhaled. Contact may cause immediate severe irritation progressing quickly to chemical burns. May cause respiratory irritation.

**Skin Contact:** Corrosive. Causes burns. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis. **Eye Contact:** Causes serious eye damage. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**Chronic Symptoms:** Suspected of causing cancer. This material contains methanol, which, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

### SECTION 5: FIRE-FIGHTING MEASURES

#### **Extinguishing Media**

Suitable Extinguishing Media: Powder, alcohol-resistant foam, water spray, carbon dioxide (CO2).

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. **Reactivity:** May react with strong oxidizing agents, caustics, strong alkalies, isocyanates, anhydrides, oxides, and inorganic acids. Formaldehyde reacts with hydrochloric acid to form the potent carcinogen, bis-chloromethyl ether. Formaldehyde reacts with nitrogen dioxide, nitromethane, perchloric acid and aniline, or peroxyformic acid to yield explosive compounds. A violent reaction occurs when formaldehyde is mixed with strong oxidizers.

#### **Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Do not allow run-off from firefighting to enter drains or water courses.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection. **Hazardous Combustion Products**: Carbon oxides (CO, CO<sub>2</sub>). Formaldehyde.

**Other Information:** Will decompose above 150 °C (> 300 °F) releasing formaldehyde vapors.

#### **Reference to Other Sections**

Refer to section 9 for flammability properties.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Avoid breathing (vapor, mist, spray).

#### For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

#### Environmental Precautions

Prevent entry to sewers and public waters.

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### Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely.

### **Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection. For further information refer to section 13.

# **SECTION 7: HANDLING AND STORAGE**

### **Precautions for Safe Handling**

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

### Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store locked up.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Amines. Metals.

#### Specific End Use(s)

No use is specified.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

| Formic acid (64-18-6)   |                               |                      |
|-------------------------|-------------------------------|----------------------|
| Mexico                  | OEL TWA (mg/m³)               | 9 mg/m <sup>3</sup>  |
| Mexico                  | OEL TWA (ppm)                 | 5 ppm                |
| USA ACGIH               | ACGIH TWA (ppm)               | 5 ppm                |
| USA ACGIH               | ACGIH STEL (ppm)              | 10 ppm               |
| USA OSHA                | OSHA PEL (TWA) (mg/m³)        | 9 mg/m <sup>3</sup>  |
| USA OSHA                | OSHA PEL (TWA) (ppm)          | 5 ppm                |
| USA NIOSH               | NIOSH REL (TWA) (mg/m³)       | 9 mg/m <sup>3</sup>  |
| USA NIOSH               | NIOSH REL (TWA) (ppm)         | 5 ppm                |
| USA IDLH                | US IDLH (ppm)                 | 30 ppm               |
| Alberta                 | OEL STEL (mg/m <sup>3</sup> ) | 19 mg/m³             |
| Alberta                 | OEL STEL (ppm)                | 10 ppm               |
| Alberta                 | OEL TWA (mg/m³)               | 9.4 mg/m³            |
| Alberta                 | OEL TWA (ppm)                 | 5 ppm                |
| British Columbia        | OEL STEL (ppm)                | 10 ppm               |
| British Columbia        | OEL TWA (ppm)                 | 5 ppm                |
| Manitoba                | OEL STEL (ppm)                | 10 ppm               |
| Manitoba                | OEL TWA (ppm)                 | 5 ppm                |
| New Brunswick           | OEL STEL (mg/m <sup>3</sup> ) | 19 mg/m³             |
| New Brunswick           | OEL STEL (ppm)                | 10 ppm               |
| New Brunswick           | OEL TWA (mg/m³)               | 9.4 mg/m³            |
| New Brunswick           | OEL TWA (ppm)                 | 5 ppm                |
| Newfoundland & Labrador | OEL STEL (ppm)                | 10 ppm               |
| Newfoundland & Labrador | OEL TWA (ppm)                 | 5 ppm                |
| Nova Scotia             | OEL STEL (ppm)                | 10 ppm               |
| Nova Scotia             | OEL TWA (ppm)                 | 5 ppm                |
| Nunavut                 | OEL STEL (mg/m <sup>3</sup> ) | 18 mg/m <sup>3</sup> |
| Nunavut                 | OEL STEL (ppm)                | 10 ppm               |

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|-------------------------|---|---|
| Nunavut                 | OEL TWA (mg/m <sup>3</sup> )                        | 9 mg/m <sup>3</sup>                     |
| Nunavut                 | OEL TWA (ppm)                                       | 5 ppm                                   |
| Northwest Territories   | OEL STEL (mg/m <sup>3</sup> )                       | 18 mg/m <sup>3</sup>                    |
| Northwest Territories   | OEL STEL (ppm)                                      | 10 ppm                                  |
| Northwest Territories   | OEL TWA (mg/m³)                                     | 9 mg/m <sup>3</sup>                     |
| Northwest Territories   | OEL TWA (ppm)                                       | 5 ppm                                   |
| Ontario                 | OEL STEL (ppm)                                      | 10 ppm                                  |
| Ontario                 | OEL TWA (ppm)                                       | 5 ppm                                   |
| Prince Edward Island    | OEL STEL (ppm)                                      | 10 ppm                                  |
| Prince Edward Island    | OEL TWA (ppm)                                       | 5 ppm                                   |
| Québec                  | VECD (mg/m <sup>3</sup> )                           | 19 mg/m <sup>3</sup>                    |
| Québec                  | VECD (ppm)  | 10 ppm                                  |
| Québec                  | VEMP (mg/m <sup>3</sup> )                           | 9.4 mg/m <sup>3</sup>                   |
| Québec                  | VEMP (ppm)  | 5 ppm                                   |
| Saskatchewan            | OEL STEL (ppm)                                      | 10 ppm                                  |
| Saskatchewan            | OEL TWA (ppm)                                       | 5 ppm                                   |
| Yukon                   | OEL STEL (mg/m³)                                    | 9 mg/m <sup>3</sup>                     |
| Yukon                   | OEL STEL (ppm)                                      | 5 ppm                                   |
| Yukon                   | OEL TWA (mg/m³)                                     | 9 mg/m <sup>3</sup>                     |
| Yukon                   | OEL TWA (ppm)                                       | 5 ppm                                   |
| Formaldehyde (50-00-0)  | ·   | <u> </u>                                |
| Mexico                  | OEL Ceiling (mg/m <sup>3</sup> )                    | 3 mg/m <sup>3</sup>                     |
| Mexico                  | OEL Ceiling (ppm)                                   | 2 ppm                                   |
| USA ACGIH               | ACGIH Ceiling (ppm)                                 | 0.3 ppm                                 |
| USA ACGIH               | ACGIH chemical category                             | Sensitizer, Suspected Human Carcinogen  |
| USA OSHA                | OSHA PEL (TWA) (ppm)                                | 0.75 ppm                                |
| USA OSHA                | OSHA PEL (STEL) (ppm)                               | 2 ppm (see 29 CFR 1910.1048)            |
| USA NIOSH               | NIOSH REL (TWA) (ppm)                               | 0.016 ppm                               |
| USA NIOSH               | NIOSH REL (ceiling) (ppm)                           | 0.1 ppm                                 |
| USA IDLH                | US IDLH (ppm)                                       | 20 ppm                                  |
| Alberta                 | OEL Ceiling (mg/m <sup>3</sup> )                    | 1.3 mg/m <sup>3</sup>                   |
| Alberta                 | OEL Ceiling (ppm)                                   | 1 ppm                                   |
| Alberta                 | OEL TWA (mg/m <sup>3</sup> )                        | 0.9 mg/m <sup>3</sup>                   |
| Alberta                 | OEL TWA (ppm)                                       | 0.75 ppm                                |
| British Columbia        | OEL Ceiling (ppm)                                   | 1 ppm                                   |
| British Columbia        | OEL TWA (ppm)                                       | 0.3 ppm                                 |
| Manitoba                | OEL Ceiling (ppm)                                   | 0.3 ppm                                 |
| New Brunswick           | OEL STEL (ppm)                                      | 1.5 ppm                                 |
| New Brunswick           | OEL TWA (ppm)                                       | 0.5 ppm                                 |
| Newfoundland & Labrador | OEL Ceiling (ppm)                                   | 0.3 ppm                                 |
| Nova Scotia             | OEL Ceiling (ppm)                                   | 0.3 ppm                                 |
| Nunavut                 | OEL Ceiling (mg/m <sup>3</sup> )                    | 2.4 mg/m <sup>3</sup>                   |
| Nunavut                 | OEL Ceiling (ppm)                                   | 2 ppm                                   |
| Northwest Territories   | OEL Ceiling (mg/m <sup>3</sup> )                    | 2.4 mg/m <sup>3</sup>                   |
| Northwest Territories   | OEL Ceiling (ppm)                                   | 2 ppm                                   |
| Ontario                 | OEL Ceiling (ppm)                                   | 1.5 ppm                                 |
| Ontario                 | OEL STEL (ppm)                                      | 1.0 ppm                                 |
| Prince Edward Island    | OEL Ceiling (ppm)                                   | 0.3 ppm                                 |
| Québec                  | PLAFOND (mg/m <sup>3</sup> )                        | 3 mg/m <sup>3</sup>                     |
| Québec                  | PLAFOND (ppm)                                       | 2 ppm                                   |
| Saskatchewan            | OEL Ceiling (ppm)                                   | 0.3 ppm                                 |
|                         |   | - · · · · · · · · · · · · · · · · · · · |

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| Yukon | OEL Ceiling (mg/m <sup>3</sup> ) | 3 mg/m <sup>3</sup> |
|-------|----------------------------------|---------------------|
| Yukon | OEL Ceiling (ppm)                | 2 ppm               |

### **Exposure Controls**

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation. Gas detectors should be used when harmful gases may be released. Ensure all national/local regulations are observed.

Personal Protective Equipment: Gloves. Safety glasses. Face shield. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Corrosion-proof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical safety goggles and face shield.

Skin and Body Protection: Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. **Other Information:** When using, do not eat, drink or smoke.

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Information on Basic Physical and Chemical Properties

| Physical State                                    | : | Liquid   |
|---|---|--|
| Appearance  | : | Clear, colorless   |
| Odor  | : | Not available  |
| Odor Threshold                                    | : | Not available  |
| pH  | : | 1.2 - 1.7  |
| Evaporation Rate                                  | : | Not available  |
| Melting Point                                     | : | Not available  |
| Freezing Point                                    | : | Not available  |
| Boiling Point                                     | : | Not available  |
| Flash Point                                       | : | Not available  |
| Auto-ignition Temperature                         | : | Not available  |
| Decomposition Temperature                         | : | Not available  |
| Flammability (solid, gas)                         | : | Not available  |
| Lower Flammable Limit                             | : | Not available  |
| Upper Flammable Limit                             | : | Not available  |
| Vapor Pressure                                    | : | Not available  |
| Relative Vapor Density at 20 °C                   | : | Not available  |
| Specific Gravity                                  | : | 1.05 - 1.07  |
| Solubility  | : | Soluble in water   |
| Partition Coefficient: N-Octanol/Water            | : | Not available  |
| Viscosity   | : | Not available  |
| Explosion Data – Sensitivity to Mechanical Impact | : | Not expected to present an explosion hazard due to mechanical impact |
| Explosion Data – Sensitivity to Static Discharge  | : | Not expected to present an explosion hazard due to static discharge  |

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## SECTION 10: STABILITY AND REACTIVITY

**<u>Reactivity</u>:** May react with strong oxidizing agents, caustics, strong alkalies, isocyanates, anhydrides, oxides, and inorganic acids. Formaldehyde reacts with hydrochloric acid to form the potent carcinogen, bis-chloromethyl ether. Formaldehyde reacts with nitrogen dioxide, nitromethane, perchloric acid and aniline, or peroxyformic acid to yield explosive compounds. A violent reaction occurs when formaldehyde is mixed with strong oxidizers.

**<u>Chemical Stability</u>**: The product is stable at normal handling and storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**<u>Conditions to Avoid</u>**: Direct sunlight. Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Metal. Amines.

<u>Hazardous Decomposition Products</u>: Carbon oxides (CO, CO<sub>2</sub>). Will decompose above 150 °C (> 300° F) releasing formaldehyde vapors. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation.

### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects - Product** 

Acute Toxicity: Oral: Harmful if swallowed.

LD50 and LC50 Data:

Formical - 4

ATE US (oral)

1,449.68 mg/kg body weight

Skin Corrosion/Irritation: Causes severe skin burns and eye damage

**pH:** 1.2 - 1.07

Serious Eye Damage/Irritation: Causes serious eye damage

**pH:** 1.2 - 1.07

Respiratory or Skin Sensitization: May cause an allergic skin reaction

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Suspected of causing cancer

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

**Symptoms/Injuries After Inhalation:** Harmful if inhaled. Contact may cause immediate severe irritation progressing quickly to chemical burns. May cause respiratory irritation

Symptoms/Injuries After Skin Contact: Corrosive. Causes burns. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision. Causes permanent damage to the cornea, iris, or conjunctiva

Symptoms/Injuries After Ingestion: Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract

**Chronic Symptoms:** Suspected of causing cancer. This material contains methanol, which, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death

### Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

| Formic acid (64-18-6)  |   |
|------------------------|---|
| LD50 Oral Rat          | 730 mg/kg                                   |
| LC50 Inhalation Rat    | 15 g/m <sup>3</sup> (Exposure time: 15 min) |
| ATE US (vapors)        | 7.85 mg/l/4h                                |
| Formaldehyde (50-00-0) |   |
| LD50 Oral Rat          | 100 mg/kg                                   |
| LD50 Dermal Rat        | 270 mg/kg                                   |
| ATE US (gases)         | 700.00 ppmV/4h                              |

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| Methanol (67-56-1)  |                          |
|---------------------|--------------------------|
| ATE US (oral)       | 100.00 mg/kg body weight |
| ATE US (dermal)     | 300.00 mg/kg body weight |
| ATE US (gases)      | 700.00 ppmV/4h           |
| ATE US (vapors)     | 3.00 mg/l/4h             |
| ATE US (dust, mist) | 0.50 mg/l/4h             |
| Carcinogenicity     |                          |

| Formaldehyde (50-00-0)                      |   |
|---|---|
| IARC Group                                  | 1   |
| National Toxicology Program (NTP) Status    | Known Human Carcinogens.                        |
| OSHA Hazard Communication Carcinogen List   | In OSHA Hazard Communication Carcinogen list.   |
| OSHA Specifically Regulated Carcinogen List | In OSHA Specifically Regulated Carcinogen list. |
|   |   |

# SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life.

| Formic acid (64-18-6)  |  |  |  |
|--|--|--|--|
| EC50 Daphnia 1 120 mg/l (Exposure time: 48 h - Species: Daphnia magna)               |  |  |  |
| EC50 Daphnia 2   | 138 - 165.6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])             |  |  |
| Formaldehyde (50-00-0)   |  |  |  |
| LC50 Fish 1  | 22.6 - 25.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |  |  |
| EC50 Daphnia 1   | 2 mg/l (Exposure time: 48 h - Species: Daphnia magna)                                |  |  |
| LC 50 Fish 2 1510 µg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static]) |  |  |  |
| EC50 Daphnia 2   | 11.3 - 18 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])               |  |  |
| Methanol (67-56-1)   |  |  |  |
| LC50 Fish 1  | 15400 mg/l   |  |  |
| EC50 Daphnia 1   | 1340 mg/l  |  |  |
| Persistence and Degradability  |  |  |  |
| Formical - 4   |  |  |  |
| Persistence and Degradability  | Not established.   |  |  |

| Bioa | ccı | ım | ulative Po | tential |  |
|------|-----|----|------------|---------|--|
|      |     | -  |            |         |  |

| Formical - 4                     |                  |
|----------------------------------|------------------|
| <b>Bioaccumulative Potential</b> | Not established. |
| Formic acid (64-18-6)            |                  |
| BCF Fish 1                       | 0.22             |
| Log Pow                          | -0.54            |
| Formaldehyde (50-00-0)           |                  |
| Log Pow                          | 0.35 (at 25 °C)  |
|                                  |                  |

Mobility in Soil Not available

**Other Adverse Effects** 

Other Information: Avoid release to the environment.

# **SECTION 13: DISPOSAL CONSIDERATIONS**

Sewage Disposal Recommendations: This material is hazardous to the aquatic environment. Keep out of sewers and waterways. Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

| SECTION 14: TRANSPOR    | T INFORMATION |  |
|-------------------------|---------------|--|
| In Accordance With ICAO | /IATA/DOT/TDG |  |
| 14.1. UN Number         |               |  |
| UN-No.(DOT)             | : 3412        |  |
| DOT NA no.              | : UN3412      |  |

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| 14.2. UN Proper Shipping Name<br>Proper Shipping Name (DOT)<br>Department of Transportation (DOT)<br>Hazard Classes | : Formic acid Solution, with not less than 10% but not more than 85% acid by mass<br>: 8 - Class 8 - Corrosive material 49 CFR 173.136   |   |  |
|---|--|---|--|
|   | · · · · · · · · · · · ·  |   |  |
| Hazard Labels (DOT)   | : 8 - Corrosive  |   |  |
|   |  |   |  |
| Packing Group (DOT)   | : II - Medium Dang   | er  |  |
| DOT Special Provisions (49 CFR 172.102)   | <ul> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2);<br/>Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure<br/>less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar<br/>at 131 F) are authorized.</li> <li>T7 - 4 178.274(d)(2) Normal</li></ul> |   |  |
| DOT Packaging Exceptions (49 CFR  | : 154  |   |  |
| 173.xxx)  |  |   |  |
| DOT Packaging Non Bulk (49 CFR  | : 202  |   |  |
| 173.xxx)  |  |   |  |
| DOT Packaging Bulk (49 CFR 173.xxx)   | : 242  |   |  |
| 14.3. Additional Information  |  |   |  |
| Emergency Response Guide (ERG)  | . 152  |   |  |
| Number  | : 153  |   |  |
| Transport by Sea  |  |   |  |
| DOT Vessel Stowage Location   | : A - The material r   | nay be stowed "on deck" or "under deck" on a cargo vessel and |  |
|   | on a passenger ve  |   |  |
| DOT Vessel Stowage Other  | : 40 - Stow "clear o   | of living quarters"   |  |
| Air Transport   |  |   |  |
| DOT Quantity Limitations Passenger  | : 1L   |   |  |
| Aircraft/Rail (49 CFR 173.27)   |  |   |  |
| DOT Quantity Limitations Cargo Aircraft   | : 30 L   |   |  |
| Only (49 CFR 175.75)  |  |   |  |
| SECTION 15: REGULATORY INFORM   | ATION  |   |  |
| US Federal Regulations  |  |   |  |
| Formical - 4  |  |   |  |
| SARA Section 311/312 Hazard Classes   |  | Immediate (acute) health hazard                               |  |
|   |  | Delayed (chronic) health hazard                               |  |
| Earmic acid (64, 19, 6)   |  |   |  |
| Formic acid (64-18-6)   | hatanaaa Caataal Aat   | linventony  |  |
| Listed on the United States TSCA (Toxic Su  | ustances Control Act   | ) inventory   |  |
| Listed on United States SARA Section 313  |  |   |  |
| SARA Section 313 - Emission Reporting   |  | 1.0 %   |  |

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|--|--|--|--|--|
| Formaldehyde (50-00-0)   |  |  |  |  |
| Listed on the United States TSCA (Toxic Substances Control                   | Act) inventory   |  |  |  |
| Listed on the United States SARA Section 302                                 |  |  |  |  |
| Listed on United States SARA Section 313                                     |  |  |  |  |
| SARA Section 302 Threshold Planning Quantity (TPQ)                           | 500  |  |  |  |
| SARA Section 311/312 Hazard Classes  | Delayed (chronic) health hazard                                |  |  |  |
|  | Immediate (acute) health hazard                                |  |  |  |
|  | Fire hazard  |  |  |  |
| SARA Section 313 - Emission Reporting  | 0.1 %  |  |  |  |
| US State Regulations   |  |  |  |  |
| Formaldehyde (50-00-0)   |  |  |  |  |
| U.S California - Proposition 65 - Carcinogens List                           | WARNING: This product contains chemicals known to the State of |  |  |  |
|  | California to cause cancer.                                    |  |  |  |
| Formic acid (64-18-6)  |  |  |  |  |
| U.S Massachusetts - Right To Know List                                       |  |  |  |  |
| U.S New Jersey - Right to Know Hazardous Substance List                      |  |  |  |  |
| U.S Pennsylvania - RTK (Right to Know) - Environmental Ha                    | azard List   |  |  |  |
| U.S Pennsylvania - RTK (Right to Know) List                                  |  |  |  |  |
| Formaldehyde (50-00-0)   |  |  |  |  |
| U.S Massachusetts - Right To Know List                                       |  |  |  |  |
| U.S New Jersey - Right to Know Hazardous Substance List                      |  |  |  |  |
| U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List           |  |  |  |  |
| U.S Pennsylvania - RTK (Right to Know) - Special Hazardou                    | s Substances   |  |  |  |
| U.S Pennsylvania - RTK (Right to Know) List                                  |  |  |  |  |
| Canadian Regulations   |  |  |  |  |
| Formical - 4   |  |  |  |  |

| Formical - 4               |  |
|----------------------------|--|
| WHMIS Classification       | Class E - Corrosive Material<br>Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects<br>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects<br>Class D Division 2 Subdivision B - Toxic material causing other toxic effects |
|                            |  |
| Formic acid (64-18-6)      |  |
| Listed on the Canadian DS  | L (Domestic Substances List)   |
| Listed on the Canadian IDI | . (Ingredient Disclosure List)   |
| IDL Concentration 1 %      |  |
| WHMIS Classification       | Class B Division 3 - Combustible Liquid  |
|                            | Class E - Corrosive Material   |
| Formaldehyde (50-00-0)     |  |
| Listed on the Canadian DS  | L (Domestic Substances List)   |
| Listed on the Canadian IDI | . (Ingredient Disclosure List)   |
| IDL Concentration 0.1 %    |  |
| WHMIS Classification       | Class A - Compressed Gas   |
|                            | Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects   |
|                            | Class D Division 2 Subdivision A - Very toxic material causing other toxic effects   |
|                            | Class D Division 2 Subdivision B - Toxic material causing other toxic effects  |
| Methanol (67-56-1)         |  |
| WHMIS Classification       | Class B Division 2 - Flammable Liquid  |
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Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date Other Information : 05/29/2015

: This product contains a component that was manufactured with formaldehyde, which may release trace amounts of formaldehyde gas in the final product application. Formaldehyde is known to the State of California to cause cancer. This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### **GHS Full Text Phrases:**

| Acute Tox. 3 (Dermal)                                | Acute toxicity (dermal) Category 3                             |
|--|--|
| Acute Tox. 3 (Inhalation)                            | Acute toxicity (definal) Category 3                            |
| Acute Tox. 3 (Inhalation:gas)                        | Acute toxicity (inhalation) category 3                         |
| Acute Tox. 3 (Inhalation:gas)                        | Acute toxicity (inhalation:gas) Category 3                     |
| Acute Tox. 3 (Oral)                                  | Acute toxicity (initiation.vapor) category 3                   |
| Acute Tox. 5 (Oral)<br>Acute Tox. 4 (Inhalation:gas) |  |
|  | Acute toxicity (inhalation:gas) Category 4                     |
| Acute Tox. 4 (Oral)                                  | Acute toxicity (oral) Category 4                               |
| Aquatic Acute 2                                      | Hazardous to the aquatic environment - Acute Hazard Category 2 |
| Aquatic Acute 3                                      | Hazardous to the aquatic environment - Acute Hazard Category 3 |
| Carc. 2  | Carcinogenicity Category 2                                     |
| Eye Dam. 1   | Serious eye damage/eye irritation Category 1                   |
| Flam. Liq. 2   | Flammable liquids Category 2                                   |
| Flam. Liq. 4   | Flammable liquids Category 4                                   |
| Skin Corr. 1A  | Skin corrosion/irritation Category 1A                          |
| Skin Corr. 1B  | Skin corrosion/irritation Category 1B                          |
| Skin Sens. 1   | Skin sensitization Category 1                                  |
| STOT SE 1  | Specific target organ toxicity (single exposure) Category 1    |
| STOT SE 3  | Specific target organ toxicity (single exposure) Category 3    |
| H225   | Highly flammable liquid and vapor                              |
| H227   | Combustible liquid   |
| H301   | Toxic if swallowed   |
| H302   | Harmful if swallowed   |
| H311   | Toxic in contact with skin                                     |
| H314   | Causes severe skin burns and eye damage                        |
| H317   | May cause an allergic skin reaction                            |
| H318   | Causes serious eye damage                                      |
| H331   | Toxic if inhaled   |
| H332   | Harmful if inhaled   |
| H335   | May cause respiratory irritation                               |
| H351   | Suspected of causing cancer                                    |
| H370   | Causes damage to organs  |
| H401   | Toxic to aquatic life  |
| H402   | Harmful to aquatic life  |
| Health Hazard : 3 -                                  | Short exposure could cause serious temporary or                |
| res<br>giv   | sidual injury even though prompt medical attention was ren.    |
| Fire Hazard : 1 -                                    | Must be preheated before ignition can occur.                   |
| 015  | FN (English US) 11/12  |

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| NFPA Reactivity           | : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.          |
|---------------------------|---|
| HMIS III Rating           |   |
| Health                    | : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given |
| Flammability              | : 1 Slight Hazard   |
| Physical                  | : 0 Minimal Hazard  |
| Party Responsible for the | Preparation of This Document  |
| StatLab Medical Products  |   |
| Phone Number: 800-442-3   | 573   |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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