

Revision: 3.0

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**Section 1. Identification****1.1 Product Identifier** 0312

Product Name PRESERVATION FLUID - (Thiel Venous Infusion)

CAS Number Mixture

REACH Registration No A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

**1.3 Supplier** Vickers Laboratories Ltd

Grangefield Industrial Estate  
Richardshaw Road  
Pudsey  
West Yorkshire  
LS28 6QW  
UNITED KINGDOM

Phone 44 0113 2362811  
Fax +44(0)113 2362703  
Email safety@viclabs.co.uk  
Website www.viclabs.co.uk

**1.4 Emergency Telephone** (08:00-16:30) +44(0) 113 2362811  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

|   |   |
|---|---|
| Flammable liquid, category 3              | H226: Flammable liquid and vapour.              |
| Skin corrosion/irritation, category 2     | H315: Causes skin irritation.                   |
| Serious eye damage/irritation, category 1 | H318: Causes serious eye damage.                |
| Skin sensitization, category 1            | H317: May cause an allergic skin reaction.      |
| Germ cell mutagenicity, category 2        | H341: Suspected of causing genetic defects.     |
| Carcinogenicity, category 1B              | H350: May cause cancer.                         |
| Reproductive toxicity, category 1B        | H360: May damage fertility or the unborn child. |

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms



**Hazard Statements** Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child.

**Precautionary Statements** Use personal protective equipment as required. Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid breathing mist/vapours/spray. **IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. **IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

## Section 3. Composition

### 3.2 Mixtures

| Component        | CAS No.    | EEC No.   | REACH No.             | Conc w/w | CLP Classification (1272/2008/CE)  |
|------------------|------------|-----------|-----------------------|----------|--|
| Ethanol          | 64-17-5    | 200-578-6 | 01-2119457610-43-XXXX | 20%      | Flam. Liq. 2, Eye Irrit. 2   |
| Ammonium nitrate | 6484-52-2  | 229-347-8 | 01-2119490981-28-XXXX | <10%     | Ox. Sol. 3, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I)   |
| Formaldehyde     | 50-00-0    | 200-001-8 | 01-2119488953-20-XXXX | 2.4%     | Acute Tox. 3 (O), Acute Tox. 3 (D), Skin Corr. 1B, Acute Tox. 3 (I), Eye Dam. 1, Skin Sens. 1, Muta. 2, Carc. 1B |
| Boric Acid       | 10043-35-3 | 233-139-2 | 01-2119486683-25-XXXX | <1.5%    | Repr. 1B   |
| Chlorocresol     | 59-50-7    | 200-431-6 |                       | <0.4%    | Acute Tox. 4 (O), Acute Tox. 4 (D), Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1                                    |
| Morpholine       | 110-91-8   | 203-815-1 | 01-2119496057-30-XXXX | 0.002%   | Flam. Liq. 3, Skin Corr. 1B, Acute Tox. 4 (O), Acute Tox. 4 (D), Acute Tox. 4 (I)                                |

## Section 4. First Aid

### 4.1 Description of first aid measures

|                                      |   |
|--------------------------------------|---|
| Eyes                                 | Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.   |
| Skin                                 | Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use.   |
| Inhalation                           | Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.                        |
| Ingestion                            | If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY. |
| Personal protection for first aiders | Wear protective gloves / eye protection.  |

### 4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

|                     |  |
|---------------------|--|
| Extinguishing Media | Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool. |
| Unsuitable Media    | Do not use water jet.  |

### 5.2 Special hazards arising from the substance or mixture

Hazards Vapour-air mixtures are explosive.

### 5.3 Advice for firefighters

Advice for firefighters

Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection

Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.

### 6.2 Environmental precautions

Environmental

Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

### 6.3 Methods and material for containment and cleaning up

Major Spillage

Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.

Minor Spillage

Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

### 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

| Component        | CAS No     | Concentration | Workplace Exposure Limits |               |                         |             |
|------------------|------------|---------------|---------------------------|---------------|-------------------------|-------------|
|                  |            |               | Long Term (8hr TWA)       |               | Short Term 15min period |             |
| Ethanol          | 64-17-5    | 20%           | 1000.0 ppm                | 1920.0 mg/m-3 | -                       | -           |
| Ammonium nitrate | 6484-52-2  | <10%          | -                         | -             | -                       | -           |
| Formaldehyde     | 50-00-0    | 2.4%          | 2.0 ppm                   | 2.5 mg/m-3    | 2.0 ppm                 | 2.5 mg/m-3  |
| Boric Acid       | 10043-35-3 | <1.5%         | -                         | -             | -                       | -           |
| Chlorocresol     | 59-50-7    | <0.4%         | -                         | -             | -                       | -           |
| Morpholine       | 110-91-8   | 0.002%        | 10.0 ppm                  | 36.0 mg/m-3   | 20.0 ppm                | 72.0 mg/m-3 |

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

### 8.2 Exposure controls

Respiratory Protection

Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.

Hand Protection

Use solvent resistant gloves.

|                 |  |
|-----------------|--|
| Eye Protection  | Use tightly fitting chemical splash proof glasses or goggles.  |
| Skin Protection | Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn. |
| Special Hazards | No special precautions required.   |

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

|                       |  |
|-----------------------|--|
| Appearance            | Clear colourless to pale brown liquid. |
| Odour                 | Characteristic.                        |
| pH                    | Not applicable                         |
| Boiling Point         | Approx 86°C                            |
| Melting Point         | Approx 9.5°C                           |
| Flash Point           | 36°C (Closed cup)                      |
| Upper Flammable Limit | 3.3                                    |
| Lower Flammable Limit | 12.2                                   |
| Auto Ignition         | 336°C                                  |
| Explosive Properties  | Moderate/severe in confined spaces.    |
| Oxidising Properties  | No.                                    |
| Vapour Pressure       | Not applicable                         |
| Relative Density      | Not available                          |
| Water Solubility      | Completely soluble in water.           |

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

|   |  |
|---|--|
| 10.1 Reactivity                         | No data available.   |
| 10.2 Chemical Stability                 | Stable under normal conditions   |
| 10.3 Possibility of hazardous reactions | No data available.   |
| 10.4 Conditions to Avoid                | Hot surfaces, naked flames or other sources of ignition.   |
| 10.5 Incompatible Materials             | Bromine. Sodium hypochlorite, diethyl zinc, dialkylaluminium solutions, and phosphorous trioxide. Nitric acid, hydrogen peroxide, sodium and chloroform and potassium tertiary butoxide. Lead perchlorate. |
| 10.6 Hazardous Decomposition Products   | None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide.   |

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

|                      |  |
|----------------------|--|
| Eyes                 | The liquid will cause conjunctival irritation and corneal damage. High concentrations of vapour may be irritating to the eyes.   |
| Skin                 | Repeated or prolonged contact may defat the skin producing irritation and dermatitis. May cause skin sensitisation.  |
| LD50 Skin            | Not available  |
| Ingestion            | Ingestion will cause severe internal irritation and damage, nausea, vomiting, abdominal pains and diarrhoea.   |
| LD50 Oral            | Not available  |
| Inhalation           | Exposure to vapour concentrations above the occupational exposure limits may produce irritation of the eyes and respiratory tract. High concentrations of vapour may produce central nervous system depression and unconsciousness. Symptoms will be similar to those following ingestion. |
| LD50 Inhalation      | Not available  |
| TCLo                 | Not available  |
| Carcinogenicity      | May cause cancer. Contains Formaldehyde. This has been extensively studied.  |
| Mutagenicity         | Suspected of causing genetic defects.  |
| Reproductive Effects | Evidence of reproductive effects.  |

## Other Information

Contains methanol. This will not constitute a special problem since ethanol is preferentially metabolised. Chronic intoxication may however produce damage to the optic nerve.

## Section 12. Ecological

|  |  |
|--|--|
| <b>12.1</b> Toxicity                         | Substantially biodegradable in water, biological oxygen demand (B.O.D.) 5 day 70%. |
| LC50 Algal                                   | Not available  |
| LC50 Crustacea                               | Not available  |
| LC50 Fish                                    | Not available  |
| <b>12.2</b> Persistence and degradability    | No data available.   |
| <b>12.3</b> Bioaccumulative potential        | No data available.   |
| <b>12.4</b> Mobility in soil                 | No data available.   |
| <b>12.5</b> Results of PBT & vPvB assessment | Assessment not required.   |
| <b>12.6</b> Other adverse effects            | None known at present.   |

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

|                        |  |
|------------------------|--|
| Disposal Methods       | Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion. |
| Contaminated Packaging | Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.   |

## Section 14. Transport Information

|  |                                  |
|--|----------------------------------|
| <b>14.1</b> UN Number                    | 1170                             |
| <b>14.2</b> Proper Shipping Name         | Ethanol solution                 |
| <b>14.3</b> Transport classes            |                                  |
| UN classification                        | 3                                |
| Subsidiary hazard(s)                     | None                             |
| Transport category                       | 3                                |
| ADR Hazard ID                            | 30                               |
| Tunnel Restriction Code                  | D/E                              |
| <b>14.4</b> Packing Group                | III                              |
| <b>14.5</b> Environment hazards          | See section 12.                  |
| <b>14.6</b> Special precautions for user | No special precautions required. |
| <b>14.7</b> Transport in bulk            | Not transported in bulk.         |



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

|                   |  |
|-------------------|--|
| Classification    | Flammable liquid, category 3; Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 1; Skin sensitization, category 1; Germ cell mutagenicity, category 2; Carcinogenicity, category 1B; Reproductive toxicity, category 1B |
| Signal word       | Danger   |
| Hazard Pictograms |  |



|                          |   |
|--------------------------|---|
| Hazard Statements        | H226, H315, H317, H318, H341, H350, H360<br>Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child.  |
| Precautionary Statements | P281, P210, P261, P301+P330+P331, P303+P361+P353, P305+P351+P338<br>Use personal protective equipment as required. Keep away from heat / sparks/open flames/hot surfaces - No smoking. Avoid breathing mist/vapours/spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. |

## 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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