Kit Name: VitroView™ Luxol Fast Blue Stain Kit
SKU #: VB-3006

Components:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VB-3006-1</td>
<td>Luxol Fast Blue Solution</td>
</tr>
<tr>
<td>VB-3006-2</td>
<td>Cresyl Violet Solution</td>
</tr>
<tr>
<td>VB-3006-3</td>
<td>Lithium Carbonate Solution</td>
</tr>
</tbody>
</table>
1. Identification of the Substance/Mixture and Company

Product Name: Luxol Fast Blue Solution
SKU#: VB-3006-1
Product Description: Kit Component
Manufacturer/Supplier: VitroVivo Biotech, LLC. 405 E Gude Dr., Suite 214, Rockville, MD 20850
Tel and Fax Number: Phone: 301-500-0499; Toll free: 1-800-260-9817; Fax: 844-248-6208

2. Hazards Identification

Classification of the substance or mixture: GHS02 Flame, Flam. Liq. 2 H225 Highly flammable liquid and vapor.
Classification according to Directive 67/548/EEC or Directive 1999/45/EC
F: Highly flammable
R11: Highly flammable.

Information concerning particular hazards for human and environment: The product has to be labelled due to the calculation procedure of international guidelines.

Classification system: The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements:
GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms: GHS02
Signal word: Danger
Hazard statements: Highly flammable liquid and vapor.

Precautionary statements
- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Use explosion-proof electrical/ventilating/fighting/equipment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Ground/bond container and receiving equipment.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)
Health = 1
Fire = 3
Reactivity = 0
HMIS-ratings (scale 0 - 4)
Health = 1
Fire = 3
Reactivity = 0

Other hazards Results of PBT and vPvB assessment PBT: Not applicable, vPvB: Not applicable.

3. Composition

Chemical characterization: Mixtures Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS: 64-17-5 EINECS: 200-578-6</th>
<th>ethanol &lt;95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 67-63-0 EINECS: 200-661-7</td>
<td>propan-2-0 &lt;5%</td>
</tr>
</tbody>
</table>

Chemical characterization: Mixtures Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components: Void

4. First Aid Measures

Description of first aid measures
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: If symptoms persist consult doctor.

Information for doctor: Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Firefighting Measures

Extinguishing media
Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water

Special hazards arising from the substance or mixture: No further relevant information available. Advice for firefighters

Protective equipment: No special measures required

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Do not allow product to reach sewage system or any water course. Prevent seepage into sewage system, work pits and cellars. Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents.

Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7. Handling and Storage

Handling:
Precautions for safe handling: No special precautions are necessary if used correctly. Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities Storage:
Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacles.

Specific end use(s): No further relevant information available.

8. Exposure Controls/Personal Protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>PEL</th>
<th>REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>1900 mg/m³, 1000 ppm</td>
<td>1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>980 mg/m³, 400 ppm</td>
<td>Short-term value: 280 mg/m³, 1000 ppm</td>
</tr>
</tbody>
</table>

Long-term value: 980 mg/m³, 400 ppm Long-term value: 982 mg/m³, 400 ppm BEI

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls:
Personal protective equipment: General protective and hygienic measures: Wash hands before breaks and at the end of work.

Breathing equipment: Not required.

Protection of hands:
Protective gloves The glove material must be impermeable and resistant to the product/ the substance/ the preparation. Due to lack of testing, no recommendation for the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material requires consideration of the penetration times, rates of diffusion and the degradation material of gloves. The selection of suitable gloves depends on the material and quality, and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and must therefore be checked prior to the application.

Penetration time of glove material: The exact break through time must be determined by the manufacturer of the protective gloves and must be observed.

Eye protection: Tightly sealed goggles

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
</tr>
<tr>
<td>Form:</td>
</tr>
<tr>
<td>Fluid</td>
</tr>
<tr>
<td>Color: Colorless</td>
</tr>
<tr>
<td>Dark blue</td>
</tr>
<tr>
<td>Odor:</td>
</tr>
<tr>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
</tr>
<tr>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range:</td>
</tr>
<tr>
<td>Undetermined</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
</tr>
<tr>
<td>Undetermined</td>
</tr>
<tr>
<td>Flash point:</td>
</tr>
<tr>
<td>13 °C (55 °F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ignition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature:</td>
</tr>
<tr>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
</tr>
<tr>
<td>Product is not self-igniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
</tr>
<tr>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosion limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
</tr>
<tr>
<td>3.5 Vol %</td>
</tr>
<tr>
<td>Upper</td>
</tr>
<tr>
<td>15.0 Vol %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Density at 20°C (68 °F):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility in / Miscibility with Water:</th>
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</thead>
<tbody>
<tr>
<td>Fully miscible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Segregation coefficient (n-octanol/water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
</tr>
</tbody>
</table>

| Dynamic: |
| Not determined |

| Kinematic: |
| Not determined |

<table>
<thead>
<tr>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and Reactivity

Reactivity:

Chemical stability: No further relevant information available.

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicology Information

Information on toxicological effects

Acute toxicity: No further relevant information available.

Primary irritant effect: No further relevant information available.

On the skin: No irritant effect.

On the eye: No irritating effect.

Sensitization: No sensitizing effects known.
Additionl toxicological information: No further relevant information available.

Carcinogenic categories
IARC (International Agency for Research on Cancer): 67-63-0 propan-2-ol / 3
NTP (National Toxicology Program): None of the ingredients are listed.

12. Ecological Information
Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Results of PBT and vPvB assessment PBT: Not applicable, vPvB: Not applicable.
Other adverse effects: No further relevant information available.

13. Disposal Considerations
Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

14. Transport Information

<table>
<thead>
<tr>
<th>UN-Number DOT, ADR, IMDG, IATA</th>
<th>UN1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name DOT, IATA</td>
<td>FLAMMABLE LIQUID, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))</td>
</tr>
<tr>
<td>ADR 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))</td>
<td></td>
</tr>
<tr>
<td>IMDG FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))</td>
<td></td>
</tr>
<tr>
<td>Transport hazard class DOT, ADR, IMDG, IATA 3 Flammable liquids</td>
<td></td>
</tr>
<tr>
<td>Packing group DOT, ADR, IMDG, IATA II</td>
<td></td>
</tr>
<tr>
<td>Environmental hazards Marine pollutant No</td>
<td></td>
</tr>
<tr>
<td>Special precautions for user Warning: Flammable liquids</td>
<td></td>
</tr>
<tr>
<td>Danger code (Kemler): 33</td>
<td></td>
</tr>
<tr>
<td>EMS Number: F-E-S-E</td>
<td></td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable</td>
<td></td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;: UN1993, FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, II</td>
<td></td>
</tr>
</tbody>
</table>

15. Regulatory Information
Safety, health and environmental regulations/legislation specific for the substance or mixture SARA
Section 355 (extremely hazardous substances) None of the ingredients are listed
Section 313 (Specific toxic chemical listings) 67-63-0 propan-2-ol
TSCA (Toxic Substances Control Act) 64-17-5 ethanol
67-63-0 propan-2-ol
64-19-7 acetic acid
7732-18-5 water, distilled, conductivity or of similar purity
Proposition 65 Chemicals known to cause cancer None of the ingredients is listed
Chemicals known to cause reproductive toxicity for females None of the ingredients are listed
Chemicals known to cause reproductive toxicity for males None of the ingredients are listed
Chemicals known to cause developmental toxicity 64-17-5 ethanol
Carcinogenic categories EPA (Environmental Protection Agency) None of the ingredients are listed
TLV (Threshold Limit Value established by ACGIH) 64-17-5 ethanol A3 67-63-0 propan-2-ol
NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration) None of the ingredients are listed.
GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS). **Hazard pictograms:**
GHS02
**Signal word:** Danger
**Hazard statements:** Highly flammable liquid and vapor.
**Precautionary statements**
- If medical advice is needed, have product container or label on hand.
- Keep out of reach of children.
- Read label before use.
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Ground/bond container and receiving equipment.
**IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Dispose of contents/container in accordance with local/regional/national/international regulations.
**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16. Other Information
This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Abbreviations and acronyms:
- **ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- **IMDG:** International Maritime Code for Dangerous Goods
- **DOT:** US Department of Transportation
- **IATA:** International Air Transport Association
- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **NFPA:** National Fire Protection Association (USA)
- **HMIS:** Hazardous Materials Identification System (USA)
- **LC50:** Lethal concentration, 50 percent
- **LD50:** Lethal dose, 50 percent

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1. Identification of the Substance/Mixture and Company

Product Name: Cresyl Violet Solution  
SKU#: VB-3006-2  
Product Description: Kit Component  
Manufacturer/Supplier: VitroVivo Biotech, LLC. 405 E Gude Dr., Suite 214, Rockville, MD 20850  
Tel and Fax Number: Phone: 301-500-0499; Toll free: 1-800-260-9817; Fax: 844-248-6208

Hazard Identification

Classification of the substance or mixture
The product is not classified according to the Globally Harmonized System (GHS).
Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Not applicable. Information concerning particular hazards for human and environment: The product does not need to be labelled due to the calculation procedure of international guidelines.
Classification system: The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
Label elements
GHS label elements: Void
Hazard pictograms: Void
Signal word: Void
Hazard statements: Void
Classification system:
NFPA ratings (scale 0 - 4)
Health = 1  
Fire = 0  
Reactivity = 0  
HMIS-ratings (scale 0 - 4)
Health = 1  
Fire = 0  
Reactivity = 0
Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable

2. Composition

Mixtures Description: Mixture of the substances listed below with nonhazardous additions.
Dangerous components: Void

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>105-10-54-0</td>
<td>234-043-3</td>
<td>Cresyl Violet Acetate</td>
<td>&lt;0.2%</td>
</tr>
</tbody>
</table>

3. First Aid Measures

Description of first aid measures
After inhalation: Remove person to fresh air. Get medical attention if symptoms worsen
After skin contact: Generally the product does not irritate the skin. Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.
After eye contact: Immediately flush eyes with copious amounts of water and get immediate medical attention.
After swallowing: Rinse with water and get immediate medical attention.
Information for doctor: Most important symptoms and effects, both acute and delayed: No further relevant information available.
Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Firefighting Measures

Extinguishing media
Suitable extinguishing agents: Water, CO2, sand, extinguishing powder.
For safety reasons unsuitable extinguishing agents: N/A
Special hazards arising from the substance or mixture: No further relevant information available. Advice for firefighters
Protective equipment: No special measures required

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
Environmental precautions: Do not allow product to reach sewage system or any water course. Prevent seepage into sewage system, workpits and cellars. Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.
Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents.
Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7. Handling and Storage

Handling
Precautions for safe handling: No special measures required.
Information about protection against explosions and fires: No special measures required.
Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
- Specific end use(s): No further relevant information available.

8. Exposure Controls/Personal Protection

Additional information about design of technical systems: No further data; see item 7.
Control parameters
- Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that need to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.
Exposure controls
Personal protective equipment
- General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Not required.
- Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation The glove material must be impermeable and resistant to the product/ the substance/ the preparation. Due to lack of testing, no recommendation for the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material requires consideration of the penetration times, rates of diffusion and the degradation material of gloves.
- Material of gloves: The selection of suitable gloves depends on the material and quality, and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and must therefore be checked prior to the application.
- Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Goggles recommended during refilling.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>General Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
</tr>
<tr>
<td>Form:</td>
<td>Fluid</td>
</tr>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
Change in condition
Melting point/Melting range: Undetermined
Boiling point/Boiling range: 100°C (212 °F)
Flash point: Not applicable.
Flammability (solid, gaseous) Not applicable.
Ignition temperature:
Decomposition temperature: Not determined.
Auto igniting: Product is not selfigniting.
Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower Not determined
Upper Not determined

Vapor pressure at 20°C (68 °F) Not determined.
Density at 20°C (68 °F): Not determined.
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with Water: Fully miscible.
Segregation coefficient (n-octanol/water) Not determined
Dynamic: Not determined
Kinematic: Not determined
Other information No further relevant information available.

10 Stability and Reactivity

Reactivity:
Chemical stability:
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.
Incompatible materials: Strong oxidizers, strong bases.
Hazardous decomposition products: Carbon oxides.

11. Toxicology Information

Information on toxicological effects
Acute toxicity
Primary irritant effect:
On the skin: May cause irritation.
On the eye: May cause irritation and redness.
Sensitization: No sensitizing effects known.
Additional toxicological information:
Carcinogenic categories
IARC (International Agency for Research on Cancer): unknown.
NTP (National Toxicology Program): None of the ingredients are listed.

12. Ecological Information

Toxicity:
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.
Other adverse effects: No further relevant information available.

13. Disposal Considerations

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agent: Water, if necessary with cleansing agents.
14. Transport Information

<table>
<thead>
<tr>
<th>UN-Number DOT, ADR, IMDG, IATA</th>
<th>Void</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name DOT, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>ADR</td>
<td>Void</td>
</tr>
<tr>
<td>IMDG</td>
<td>Void</td>
</tr>
<tr>
<td>Transport hazard class DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>Packing group DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>Environmental hazards Marine pollutant</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;</td>
<td>-</td>
</tr>
</tbody>
</table>

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture SARA

<table>
<thead>
<tr>
<th>Section 355 (extremely hazardous substances)</th>
<th>None of the ingredients are listed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 313 (Specific toxic chemical listings)</td>
<td>10510-54-0 Cresyl Etcht Violet</td>
</tr>
<tr>
<td>TSCA (Toxic Substances Control Act)</td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td>Proposition 65 Chemicals known to cause cancer</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females</td>
<td>None of the ingredients are listed</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males</td>
<td>None of the ingredients are listed</td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity</td>
<td>10510-54-0 Cresyl Etcht Violet</td>
</tr>
<tr>
<td>Carcinogenic categories EPA (Environmental Protection Agency)</td>
<td>None of the ingredients are listed</td>
</tr>
<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>None of the ingredients are listed.</td>
</tr>
<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>None of the ingredients are listed.</td>
</tr>
<tr>
<td>OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
<td>None of the ingredients are listed</td>
</tr>
</tbody>
</table>

GHS label elements Void
Hazard pictograms Void
Signal word Void
Hazard statements Void

16. Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
**LC50**: Lethal concentration, 50 percent

**LD50**: Lethal dose, 50 percent
1. **Identification of the Substance/Mixture and Company**

**Product Name:** Lithium Carbonate Solution  
**SKU#** VB-3006-3  
**Product Description:** Kit Component  
**Manufacturer/Supplier:** VitroVivo Biotech, LLC. 405 E Gude Dr., Suite 214, Rockville, MD 20850  
**Tel and Fax Number:** Phone: 301-500-0499; Toll free: 1-800-260-9817; Fax: 844-248-6208

2. **Hazards Identification**

**Classification of the substance or mixture**

The product is not classified according to the Globally Harmonized System (GHS).

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC:** Not applicable.

**Information concerning particular hazards for human and environment:** The product does not need to be labelled due to the calculation procedure of international guidelines.

**Classification system:** The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

**Label elements**

**GHS label elements** Void  
**Hazard pictograms** Void  
**Signal word** Void  
**Hazard statements** Void

**NFPA ratings (scale 0 - 4)**  
Health = 1  
Fire = 0  
Reactivity = 0

**HMIS-ratings (scale 0 - 4)**  
Health = 1  
Fire = 0  
Reactivity = 0

**Other hazards**  
Results of PBT and vPvB assessment  
PBT: Not applicable.  
vPvB: Not applicable

3. **Composition**

**Chemical characterization:**

**Mixtures Description:** Mixture of the substances listed below with nonhazardous additions.  
**Dangerous components:** Void

4. **First Aid Measures**

**Description of first aid measures**

**General information:** No special measures required.  
**After inhalation:** Supply fresh air; consult doctor in case of complaints.  
**After skin contact:** Generally the product does not irritate the skin.  
**After eye contact:** Rinse opened eye for several minutes under running water.  
**After swallowing:** If symptoms persist consult doctor.

**Information for doctor**

**Most important symptoms and effects, both acute and delayed:** No further relevant information available.  
**Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

5. **Firefighting Measures**

**Extinguishing media**

**Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
**Special hazards arising from the substance or mixture:** No further relevant information available.
Advice for firefighters
Protective equipment: No special measures required.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Not required. Environmental precautions: Dilute with plenty of water.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections
- No dangerous substances are released. See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7. Handling and Storage

Handling
Precautions for safe handling: No special measures required.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s): No further relevant information available.

8. Exposure Controls/Personal Protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that need to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment

General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The glove material must be impermeable and resistant to the product/ the substance/ the preparation. Due to lack of testing, no recommendation for the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material requires consideration of the penetration times, rates of diffusion and the degradation material of gloves.

Material of gloves: The selection of suitable gloves depends on the material and quality, and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and must therefore be checked prior to the application.

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

9. Physical and Chemical Properties

General Information

Appearance
Form: Fluid
Color: Colorless
Odor: Odorless
Odor threshold: Not determined
pH-value: Not determined
Change in condition
Melting point/Melting range: Undetermined
Boiling point/Boiling range: 100°C (212 °F)
Flash point: Not applicable.
Flammability (solid, gaseous): Not applicable.
Ignition temperature: Not determined.
Decomposition temperature: Not determined.
Auto igniting: Product is not self-igniting.
Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
- Lower: Not determined
- Upper: Not determined

Vapor pressure at 20°C (68 °F): 23 hPa (17 mm Hg)
Density at 20°C (68 °F): 1.00056 g/cm³ (8.35 lbs/gal)
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with Water: Fully miscible.
Segregation coefficient (n-octanol/water): Not determined.
Dynamic: Not determined
Kinematic: Not determined

Other information: No further relevant information available.

10 Stability and Reactivity
Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicology Information
Information on toxicological effects
Acute toxicity
Primary irritant effect
- On the skin: No irritant effect.
- On the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
Carcinogenic categories
IARC (International Agency for Research on Cancer): None of the ingredients are listed.
NTP (National Toxicology Program): None of the ingredients are listed.

12. Ecological Information
Toxicity
Aquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behavior in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes: Generally not hazardous for water
Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.
Other adverse effects: No further relevant information available.

13. Disposal Considerations
Waste treatment methods
Recommendation: Smaller quantities can be disposed of with household waste. Disposal must be according to official regulations.
Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agent: Water, if necessary with cleansing agents.

### 14. Transport Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>UN proper shipping name DOT, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>ADR</td>
<td>Void</td>
</tr>
<tr>
<td>IMDG</td>
<td>Void</td>
</tr>
<tr>
<td>Transport hazard class DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>Packing group DOT, ADR, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td>Environmental hazards Marine pollutant</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN “Model Regulation”</td>
<td>-</td>
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### 15. Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture SARA**

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>355</td>
<td>(extremely hazardous substances)</td>
<td>None of the ingredients are listed.</td>
</tr>
<tr>
<td>313</td>
<td>(Specific toxic chemical listings)</td>
<td>554-13-2 lithium carbonate</td>
</tr>
<tr>
<td>TSCA</td>
<td>(Toxic Substances Control Act)</td>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td>Proposition 65</td>
<td>Chemicals known to cause cancer</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for females</td>
<td>None of the ingredients is listed.</td>
<td></td>
</tr>
<tr>
<td>Chemicals known to cause reproductive toxicity for males</td>
<td>None of the ingredients are listed</td>
<td></td>
</tr>
<tr>
<td>Chemicals known to cause developmental toxicity</td>
<td>554-13-2 lithium carbonate</td>
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<tr>
<td>Carcinogenic categories EPA (Environmental Protection Agency)</td>
<td>None of the ingredients are listed</td>
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<tr>
<td>TLV (Threshold Limit Value established by ACGIH)</td>
<td>None of the ingredients are listed</td>
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<tr>
<td>NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
<td>None of the ingredients are listed</td>
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