



VitroVivo Biotech

Make Tissues, Cells, Genes and Molecules Visible

Material Safety Data Sheet

Revision Date: 01-13-2017

Kit Name: VitroView™ Luxol Fast Blue Stain Kit

SKU #: VB-3006

Components:

VB-3006-1	Luxol Fast Blue Solution
VB-3006-2	Cresyl Violet Solution
VB-3006-3	Lithium Carbonate Solution

VB-3006-1 Luxol Fast Blue Solution MSDS

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. 9605 Medical Center Dr., Suite 315, 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/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.

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.

CAS: 64-17-5 EINECS: 200-578-6	ethanol	<95%
	Flam. Liq. 2, H22	
CAS: 67-63-0 EINECS: 200-661-7	propan-2-o	<5%
	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	

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

Ethanol	PEL	1900 mg/m ³ , 1000 ppm
	REL	1900 mg/m ³ , 1000 ppm
	TLV	Short-term value: 1880 mg/m ³ , 1000 ppm
propan-2-ol	PEL	980 mg/m ³ , 400 ppm
	REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
	TLV	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 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

General Information	
Appearance	
Form:	Fluid
Color: Colorless	Dark blue
Odor:	Alcohol-like
Odor threshold	Not determined
pH-value	Not determined
Change in condition	
Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	Undetermined
Flash point:	13°C (55 °F)
Flammability (solid, gaseous)	Not applicable
Ignition temperature:	
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self igniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Explosion limits:	
Lower	3.5 Vol %
Upper	15.0 Vol %
Vapor pressure at 20°C (68 °F)	59 hPa (44 mm Hg)
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: 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.

Additional 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

UN-Number DOT, ADR, IMDG, IATA	UN1993
UN proper shipping name DOT, IATA ADR	FLAMMABLE LIQUID, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL)) 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))
IMDG	FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))
Transport hazard class DOT, ADR, IMDG, IATA	3 Flammable liquids
Packing group DOT, ADR, IMDG, IATA	II
Environmental hazards Marine pollutant	No
Special precautions for user	Warning: Flammable liquids
Danger code (Kemler):	33
EMS Number:	F-E,S-E
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
UN "Model Regulation"	UN1993, FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, II

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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VB-3006-2 Cresyl Violet Solution MSDS

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, 9605 Medical Center Dr., Suite 315, Rockville, MD 20850
Tel and Fax Number Phone: 301-500-0499; Toll free: 1-800-260-9817; Fax: 844-248-6208

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

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

CAS: 105-10-54-0 EINECS: 234-043-3	Cresyl Violet Acerate	<0.2%
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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

General Information

Appearance

Form:	Fluid
Color:	Colorless
Odor:	Odorless
Odor threshold	Not determined

pH-value	Not determined
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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

UN-Number DOT, ADR, IMDG, IATA	Void
UN proper shipping name DOT, IATA	Void
ADR	Void
IMDG	Void
Transport hazard class DOT, ADR, IMDG, IATA	Void
Packing group DOT, ADR, IMDG, IATA	Void
Environmental hazards Marine pollutant	No
Special precautions for user	Not applicable
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
UN "Model Regulation"	-

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)	10510-54-0 Cresyl Etcht Violet
TSCA (Toxic Substances Control Act)	All ingredients are listed.
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	10510-54-0 Cresyl Etcht Violet
Carcinogenic categories EPA (Environmental Protection Agency)	None of the ingredients are listed
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients are listed.
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 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

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VB-3006-3 Lithium Carbonate Solution MSDS

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. 9605 Medical Center Dr., Suite 315, 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

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

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:	
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/cm ³ (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**

UN-Number DOT, ADR, IMDG, IATA	Void
UN proper shipping name DOT, IATA	Void
ADR	Void
IMDG	Void
Transport hazard class DOT, ADR, IMDG, IATA	Void
Packing group DOT, ADR, IMDG, IATA	Void
Environmental hazards Marine pollutant	No
Special precautions for user	Not applicable
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
UN "Model Regulation"	-

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)	554-13-2 lithium carbonate
TSCA (Toxic Substances Control Act)	All ingredients are listed.
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	554-13-2 lithium carbonate
Carcinogenic categories EPA (Environmental Protection Agency)	None of the ingredients are listed
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients are listed.
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 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 I.

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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