Safety Data Sheet

B4 LiF **B4 ST**

Issue Date: 13-Jul-2023 v.2

1. Identification

1.1. Product Identifier	B4 LiF & B4 ST
Product form	Liquid mixture
Product Name	B4 LiF & B4 ST
1.2 Identified Uses	
Recommended Use	Seed or Soil inoculant

1.3 Supplier of the SDS

Dakota Bio
102 E Bailie St
Kentland, IN 47951
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2. Hazards Identification

2.1 Classification of the mixture	
Eye Irritation	Category 2B
Skin Irritation	Category 2
2.2 Labeling Elements	Skin and Eye Irritation
2.3 Other hazards	None
2.4 Unknown acute toxicity	None

3. Composition on ingredients

3.1 Substance	Proprietary Bacteria Blend	
3.2 Mixture of ingredient		
Mixture Active Ingredient	Proprietary Bacteria Blend 2%	**CAS Number:** N/A **% by weight:** 22-31%
	Sodium benzoate	**CAS Number:** 532-32-1 **% by weight**: <0.3%
	Potassium sorbate	**CAS Number:** 24634-61-5 **% by weight:** <0.3%
	Tetrasodium EDTA	**CAS Number:** 64-02-8 **% by weight:** <0.2%
	Water	**CAS Number:** 7732-18-5 % by weight: Remainder %

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4. First Aid

4.1 Description of First Aid

First Aid General	If you feel sick, seek medical assistance
First Aid Inhalation	Leave infected area, breath fresh air, rest
First Aid Skin contact	Remove contaminated clothing, wash with soap and water.
First Aid Eye contact	Rinse immediately for 15 minutes
First Aid ingestion	Rinse mouth, give water, do not induce vomiting

4.2 Symptoms and effects: acute and delayed

Symptoms	No expected hazard under normal use. Dakota Bio uses non pathogenic organisms that are considered to be non-allergenic, and non-irritating.
Symptoms from eye contact	May cause irritation
Special Treatment/medical attention	Treat symptomatically

5. Firefighting Measures

5.1 Extinguishing Media

Suitable extinguishing media	Foam, Dry Powder, Carbon dioxide, Water spray, Sand.
Unsuitable extinguishing media	None

5.2 Special Hazards

Fire Hazard	None
Explosion Hazard	None
Reactivity	Thermal decomposition, Carbon monoxide, Carbon Dioxide, Hydrocarbons

5.3 Advice for Firefighters

Firefighting instructions	Use water spray or fog for cooling containers
Protective equipment for firefighters	No special requirements

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6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures Use with adequate ventilation

6.1.1 Non-emergency personnel

Emergency procedures	Prevent further leakage and spills, avoid formation of aerosol and dust

6.1.2 Emergency responders

Protective equipment	Equip cleanup crew with proper protection
Emergency procedure	Ventilate the area

6.2Environmental precautions None

6.3 Methods and material for contaminant cleanup

Methods	Soak up spills with inert solids, collect spillage, Store away from other chemicals, dispose according local regulation.

6.4 Reference to other sections No additional information

7. Handling and Storage

7.1 Precautions for safe handling

Precautions	Wash exposed areas with mild soap and water before eating. Avoid contact with skin, eyes, and clothing.
Hygiene measures	Handle with good industrial hygiene and safety practices. Wash hands after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions	Keep in original container, cool, away from high heat, ventilate. Keep container closed when not in use. Do not freeze.
Incompatible materials	Acids, Bases, Oxidizing agents, Reducing agents, Disinfectants, fungicides, and biocides.
Storage Temperature	Do not freeze.

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8. Exposure controls/personal protection

8.1 Control Parameters None

8.2 Exposure controls

Appropriate engineering controls	Ensure adequate ventilation, emergency eye wash fountains, safety showers
Personal protective equipment	Avoid unnecessary exposure. Protective goggles and gloves.
Hand Protection	Protective gloves recommended.
Eye Protection	Chemical or safety goggles
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	Use approved respiratory protection
Other information	Do not eat, drink, or smoke during use.

9. Physical and Chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Amber colored liquid
Odor	Slight fermentation odor
pH	4.0-4.3
Relative evaporation rate	Not available
Melting point	Not available
Freezing point	-1C (30F)
Boiling point	Not available
Flash point	Not available
Auto ignition temperature	Not applicable
Decomposition temperature	Not available
Flammability (solid, gas)	Not applicable
Vapor pressure	Not available
Relative vapor density at 20C	Not available

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9.1 Continued - Information on basic physical and chemical properties

Relative Density	Not available
Solubility	Not available
Log Pow	Not available
Log Kow	Not available
Viscosity, kinematic	Not available
Viscosity dynamic	Not available
Explosive properties	Not available
Oxidizing properties	Not available
Explosive limits	Not available

10. Stability and reactivity

10.1 Reactivity	Stable
10.2 Chemical stability	Stable
10.3 Possibility of hazardous reactions	Hazardous polymerization will not occur
10.4 Conditions to avoid	Direct sunlight, extreme temperatures, heat
10.5 Incompatible materials	Acids, Bases, oxidizing agents, reducing agents, disinfectants, fungicides, biocides
10.6 Hazardous decomposition products	Thermal decomposition generates: Carbon dioxide, hydrocarbons

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity	Not classified
Skin corrosion/irritation	Mild 2B
Serious eye damage/irritation	Mild 2
Respiratory or skin sensitization	Not classified
Germ cell mutation	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Target organ toxicity (single exposure)	Not classified
Target organ toxicity (repeat exposure)	Not classified
Aspiration hazard	Not classified
Symptoms/injuries after eye contact	May cause irritation

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12. Ecological information

12.1 Toxicity	None
12.2 Persistence and degradability	Biodegradable
12.3 Bio accumulative potential	Not established
12.4 Mobility in soil	None
12.5 Other adverse effects	
Effects on Ozone	None
Effect on global warming	None
Other	None

13. Disposal consideration

13.1 Waste treatment methods

Waste disposal recommendations	No disposable special requirements, stay in accordance with local regulations.

14. Transport information

In accordance with DOT	Not regulated for transport

Additional information

Other	No supplemental information needed

15. Regulatory information

15.1 National regulations	This material is not considered hazardous

16. Other Information

NFPA health hazard	1 – Exposure could cause irritation but only minor injury if no treatment is given
NFPA fire hazard	0 – Materials will not burn
NFPA reactivity	0 – Stable, even under fire conditions, not reactive with water.

Information and recommendations listed herein are presented in good faith and believed to be correct as of the date hereof. Dakota Bio or any of its subsidiaries makes no representations as to the completeness or accuracy thereof.