

 DB32

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.
 May cause irritation
 Treat symptomatically

Symptoms from eye contact

Special Treatment/medical attention

5. Firefighting Measures

5.1 Extinguishing Media

Suitable extinguishing media Foam, Dry Powder, Carbon dioxide, Water.

Unsuitable extinguishing media Heavy water stream

5.2 Special Hazards

Fire Hazard None known

Explosion Hazard None known

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 Full protective gear as in any fire

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 Non-emergency personnel

Emergency procedures Stop source of leak or contamination

6.1.2 Emergency responders

Protective equipment Equip cleanup crew with proper protection

Emergency procedure Ventilate the area

6.2 Environmental 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, well ventilated away from direct sunlight away from extreme high and low temperatures. Keep container closed when not in use. Do not freeze.

Incompatible materials

Acids, Bases, Oxidizing agents, Reducing agents, Disinfectants, fungicides, and biocides.

Storage Temperature

4-31° C (39-89° F)

7.3 Specific uses

No additional information

8. Exposure controls/personal protection

8.1 Control parameters

No additional information available

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, emergency fountains, safety showers eye wash

Personal protective equipment

Avoid unnecessary exposure. Protective goggles, clothing and gloves.

Hand Protection

Protective gloves.

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

<u>Physical state</u>	Liquid
<u>Appearance</u>	Opaque Liquid
<u>Color</u>	Opaque Liquid
<u>Odor</u>	Slight fermentation odor
<u>pH</u>	6.5-7.4
<u>Relative evaporation rate</u>	Not available
<u>Melting point</u>	Not available
<u>Freezing point</u>	-4 C (25 F)
<u>Boiling point</u>	Not available
<u>Flash point</u>	Not available
<u>Auto ignition temperature</u>	Not applicable
<u>Decomposition temperature</u>	Not available

9.1 Continued - Information on basic physical and chemical properties

<u>Flammability (solid, gas)</u>	Not applicable
<u>Vapor pressure</u>	Not available
<u>Relative vapor density at 20C</u>	Not available
<u>Relative Density</u>	Not available
<u>Solubility</u>	Not available
<u>Log Pow</u>	Not available
<u>Log Kow</u>	Not available
<u>Viscosity, kinematic</u>	Not available
<u>Viscosity dynamic</u>	Not available
<u>Explosive properties</u>	Not available
<u>Oxidizing properties</u>	Not available
<u>Explosive limits</u>	Not available

9.2 Other information Not available

10. Stability and reactivity

<u>10.1 Reactivity</u>	Stable
<u>10.2 Chemical stability</u>	Stable
<u>10.3 Possibility of hazardous reactions</u>	Hazardous polymerization will not occur

10.4 Conditions to avoid

10.5 Incompatible materials

10.6 Hazardous decomposition products

Direct sunlight, extreme temperatures, heat
Acids, Bases, oxidizing agents, reducing agents, disinfectants, fungicides, biocides
Thermal decomposition generates: Carbon dioxide, hydrocarbons

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified

Skin corrosion/irritation

Not classified

Serious eye damage/irritation

Not classified

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

12. Ecological information

12.1 Toxicity

No additional information available

12.2 Persistence and degradability

No additional information available

12.3 Bio accumulative potential

Not established

12.4 Mobility in soil

No additional information available

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

Dispose in safe manner 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.