

SAFETY DATA SHEET

SECTION 1. Identification of the substance/mixture and of the company

1. Product identifier

Product No: BP-AS-113

Product Name: Ladder complex solution

2. Recommended use of the chemical and restrictions on use

Relevant identified uses: For research use only.

Uses advised against: Not used for diagnostic procedures.

3. Details of the supplier of the safety data sheet

Zhuhai Biori Biotechnology Co.,Ltd

No, 88, Shui an 1st Road,Xiangzhou District, Zhuhai, Guangdong, China.

Hotline: +86-0756-8699969

SECTION 2. Hazard Identification

GHS (Globally Harmonized System) Classification.

1. Signal word: None.

2. Health hazards: Not classified.

3. Physical hazards: Not classified.

4. Hazard statements: Not applicable.

5. Precautionary Statements: Not applicable.

6. Principle Routes of Exposure/Potential Health effects

Eyes: May cause eye irritation in susceptible individuals.

Skin: May cause skin irritation in susceptible individuals.

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

7. Specific effects

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

SECTION 3. Composition/information on ingredients

The product contains no substances considered harmful to health at the given concentration.

CAS#	Chemical Name	Weight(%)	EINECS#
3483-12-3	DTT	0.1~0.5	231-298-2
68-04-2	Sodium citrate	0.025~0.05	200-675-3
7732-18-5	H ₂ O	Balance	231-791-2

SECTION 4. First aid measures

1. Skin contact: Rinse cautiously with water for several minutes. No need urgent medical attention.

2. Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if available and accessible.

3. Ingestion: No significant ingestion hazard should be considered under conditions of normal use. Seek medical attention if feeling unwell.

4. Inhalation: No significant inhalation hazard should be considered under conditions of normal use. Consult a physician if necessary.

5. Most important symptoms and effects, both acute and delayed: Not applicable.

6. Instructions for physicians: symptomatic treatment.

SECTION 5. Fire-Fighting measures

1. Suitable extinguishing media: Carbon dioxide (CO₂), foam, dry chemical.
2. Unsuitable extinguishing media: No information available.
3. Special hazards arising from the substance or mixture: No information available.
4. Protective equipment and precautions for firefighters: Standard procedure for chemical fires.

SECTION 6. Accidental release measures

1. Personal precautions: Always wear recommended Personal Protective Equipment. Use personal protection equipment.
2. Methods for cleaning up: Absorb with inert absorbent material.
3. Environmental precautions: No special environmental precautions required. See Section 12 for more information.

SECTION 7. Handling and storage

1. Handling: Always wear recommended Personal Protective Equipment. Wear personal protective equipment.
2. Storage: 2-8°C
3. Specific end use (s): For research use only.

SECTION 8. Exposure controls/personal protection

1. Exposure Limits: We are not aware of any national exposure limit.
2. Engineering measures: Ensure adequate ventilation, especially in confined areas.
3. Personal protective equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment of each laboratory that may use the material.
 - Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.
 - Hand Protection: Impervious gloves.
 - Eye protection: Safety glasses with side-shields. Skin and body protection: Lightweight protective clothing.
 - Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
4. Environmental exposure controls: No special environmental precautions are required.

SECTION 9. Physical and chemical properties

Physical and chemical Properties	Information	Physical and chemical Properties	Information
Form	Liquid	Flammability(solid gas)	No Data
Appearance	No Data	Qxidising properties	No Data
Odour	Odourless	Water solubility	No Data
Odour Threshold	Tasteless	Upper explosion limit	No Data
Boiling point / boiling range	No Data	Lower explosion limit	No Data
Melting point / melting range	No Data	Vapour Pressure	No Data
flash point	No Data	vapour density	No Data
Autoignition temperature	No Data	Viscosity	No Data
Evaporation rate	No Data	pH value	6.0-7.0

SECTION 10. Stability and reactivity

1. Chemical stability: Stable under normal conditions.
2. Reactivity: None known.
3. Possibility of hazardous reactions: Hazardous reaction has not been reported.
4. Conditions to avoid: No information available.
5. Incompatible materials: Strong acids. Strong oxidants.
6. Hazardous decomposition products: No data available

SECTION 11: Toxicological information

1. Acute toxicity: No toxicology information is available.

2. Principle Routes of exposure potential Health effects.
- Eyes: May cause eye irritation in susceptible individuals.
- Skin: May cause skin irritation in susceptible individuals.
- Inhalation: May be harmful by inhalation.
- Ingestion: May be harmful if swallowed.
- Carcinogenic effects: None.
- Mutagenic effects: None.
- Reproductive toxicity: None.
- Sensitization: None.

SECTION 12: Ecological information

1. Ecotoxicity: Contains no substances known to be hazardous to the environment or non-degradable in wastewater treatment plants.
2. Mobility: No information available.
3. Biodegradation: No information available.
4. Bioaccumulation: No information available.

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

- Proper Shipping Name: Not classified as dangerous according to shipping regulations.
- Hazard Class: None.
- Subsidiary class: None
- Packing group: None.
- UN-No: None.

SECTION 15: Regulatory information

1. International Inventories: No information available.
2. China: No information available.

SECTION 16: Other information

1. Indication of changes: GHS aligned.
2. Training instructions: Use as instructed.
3. Further information: The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. This SDS has been prepared for use with this product only.
4. Notice to readers: The information and recommendations in this safety data sheet should be regarded as a supplement to existing regulations and relevant information that should be known before. It is the responsibility of the users to determine the applicability of this information and the suitability of the material or product for any particular purpose. The health and safety of employees while using this product should be taken responsibly by the employer. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

End of Safety Date Sheet

SAFETY DATA SHEET

SECTION 1. Identification of the substance/mixture and of the company

1. Product identifier

Product No: BP-AS-22

Product Name: 2×Loading Dye

2. Recommended use of the chemical and restrictions on use

Relevant identified uses: For research use only.

Uses advised against: Not used for diagnostic procedures.

3. Details of the supplier of the safety data sheet

Zhuhai Biori Biotechnology Co.,Ltd

No, 88, Shui an 1st Road,Xiangzhou District, Zhuhai, Guangdong, China.

Hotline: +86-0756-8699969

SECTION 2. Hazard Identification

GHS (Globally Harmonized System) Classification.

1. Signal word: None.

2. Health hazards: Not classified.

3. Physical hazards: Not classified.

4. Hazard statements:

H351 - Suspected of causing cancer

H360 - May damage fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

5. Precautionary Statements: Not applicable.

6. Principle Routes of Exposure/Potential Health effects

Eyes: May cause eye irritation in susceptible individuals.

Skin: May cause skin irritation in susceptible individuals.

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

7. Specific effects

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

SECTION 3. Composition/information on ingredients

The product contains no substances considered harmful to health at the given concentration.

CAS#	Chemical Name	Weight(%)	EINECS#
75-12-7	Formamide	80-100%	200-842-0

SECTION 4. First aid measures

1. Skin contact: Rinse cautiously with water for several minutes. No need urgent medical attention.
2. Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if available and accessible.
3. Ingestion: No significant ingestion hazard should be considered under conditions of normal use. Seek medical attention if feeling unwell.
4. Inhalation: No significant inhalation hazard should be considered under conditions of normal use. Consult a physician if necessary.
5. Most important symptoms and effects, both acute and delayed: Not applicable.

6. Instructions for physicians: symptomatic treatment.

SECTION 5. Fire-Fighting measures

1. Suitable extinguishing media: Carbon dioxide (CO₂), foam, dry chemical.
2. Unsuitable extinguishing media: No information available.
3. Special hazards arising from the substance or mixture: No information available.
4. Protective equipment and precautions for firefighters: Standard procedure for chemical fires.

SECTION 6. Accidental release measures

1. Personal precautions: Always wear recommended Personal Protective Equipment. Use personal protection equipment.
2. Methods for cleaning up: Absorb with inert absorbent material.
3. Environmental precautions: No special environmental precautions required. See Section 12 for more information.

SECTION 7. Handling and storage

1. Handling: Always wear recommended Personal Protective Equipment. Wear personal protective equipment.
2. Storage: 2-8°C
3. Specific end use (s): For research use only.

SECTION 8. Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Formamide	37 mg/m ³	None	1 ppm	None

Chemical Name	Brazil-OEL-TWAs (LTs)	Brazil-OEL-Ceilings	Brazil-OEL-Skin Designations
Formamide	1 ppm	None	None

1. Exposure Limits: We are not aware of any national exposure limit.
2. Engineering measures: Ensure adequate ventilation, especially in confined areas.
3. Personal protective equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment of each laboratory that may use the material.
 - Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.
 - Hand Protection: Impervious gloves.
 - Eye protection: Safety glasses with side-shields.
 - Skin and body protection: Lightweight protective clothing.
 - Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
4. Environmental exposure controls: No special environmental precautions are required.

SECTION 9. Physical and chemical properties

Physical and chemical Properties	Information	Physical and chemical Properties	Information
Form	Liquid	Flammability(solid gas)	No Data
Appearance	No Data	Oxidising properties	No Data
Odour	Odourless	Water solubility	No Data
Odour Threshold	Tasteless	Upper explosion limit	No Data
Boiling point / boiling range	No Data	Lower explosion limit	No Data
Melting point / melting range	No Data	Vapour Pressure	No Data
flash point	No Data	vapour density	No Data
Autoignition temperature	No Data	Viscosity	No Data

Evaporation rate	No Data	pH value	No Data
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SECTION 10. Stability and reactivity

1. Chemical stability: Stable under normal conditions.
2. Reactivity: None known.
3. Possibility of hazardous reactions: Hazardous reaction has not been reported.
4. Conditions to avoid: No information available.
5. Incompatible materials: Strong acids. Strong oxidants.
6. Hazardous decomposition products: No data available

SECTION 11: Toxicological information

1. Acute toxicity: No toxicology information is available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Formamide	3200 mg/kg	13500 mg/kg	3900 ppm/6H

2. Principle Routes of exposure potential Health effects.
 Eyes: Data are conclusive but insufficient for classification.
 Skin: Data are conclusive but insufficient for classification.
 Inhalation: Data are conclusive but insufficient for classification.
 Ingestion: Data are conclusive but insufficient for classification.
 Carcinogenic effects: Data are conclusive but insufficient for classification.
 Mutagenic effects: Data are conclusive but insufficient for classification.
 Reproductive toxicity: Data are conclusive but insufficient for classification.
 Sensitization: Data are conclusive but insufficient for classification.

SECTION 12: Ecological information

1. Ecotoxicity: Contains no substances known to be hazardous to the environment or non-degradable in wastewater treatment plants.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic in verteb rates	Toxicity to fish	Microtox Data	log Pow
Formamide	Desmodesmus subspicatus EC50>500 mg/L (72 h) Desmodesmus subspicatus EC50>500 mg/L (96 h)	Daphnia magna EC50>500 mg/L (48 h)	No data available	No data available	logPow-0.82

2. Mobility: No information available.
3. Biodegradation: No information available.
4. Bioaccumulation: No information available.

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

Proper Shipping Name: Not classified as dangerous according to shipping regulations.

Hazard Class: None.

Subsidiary class: None

Packing group: None.

UN-No: None.

SECTION 15: Regulatory information

1. International Inventories: No information available.

Component	US TSCA
Formamide 75-12-7 (80-100)	Listed

2. China: No information available.

SECTION 16: Other information

1. Indication of changes: GHS aligned.

2. Training instructions: Use as instructed.

3. Further information: The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. This SDS has been prepared for use with this product only.

4. Notice to readers: The information and recommendations in this safety data sheet should be regarded as a supplement to existing regulations and relevant information that should be known before. It is the responsibility of the users to determine the applicability of this information and the suitability of the material or product for any particular purpose. The health and safety of employees while using this product should be taken responsibly by the employer. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

End of Safety Date Sheet

SAFETY DATA SHEET

SECTION 1. Identification of the substance/mixture and of the company

1. Product identifier

Product No: BP-AS-32(DG)

Product Name: Lyo-Ready RNA Ladder 12000

2. Recommended use of the chemical and restrictions on use

Relevant identified uses: For research use only.

Uses advised against: Not used for diagnostic procedures.

3. Details of the supplier of the safety data sheet

Zhuhai Biori Biotechnology Co.,Ltd

No, 88, Shui an 1st Road,Xiangzhou District, Zhuhai, Guangdong, China.

Hotline: +86-0756-8699969

SECTION 2. Hazard Identification

GHS (Globally Harmonized System) Classification.

1. Signal word: None.

2. Health hazards: Not classified.

3. Physical hazards: Not classified.

4. Hazard statements: Not applicable.

5. Precautionary Statements: Not applicable.

6. Principle Routes of Exposure/Potential Health effects

Eyes: May cause eye irritation in susceptible individuals.

Skin: May cause skin irritation in susceptible individuals.

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

7. Specific effects

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

SECTION 3. Composition/information on ingredients

The product contains no substances considered harmful to health at the given concentration.

CAS#	Chemical Name	Weight(%)	EINECS#
NONE	Lyo-Ready RNA Ladder 12000	-	-

SECTION 4. First aid measures

1. Skin contact: Rinse cautiously with water for several minutes. No need urgent medical attention.

2. Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if available and accessible.

3. Ingestion: No significant ingestion hazard should be considered under conditions of normal use. Seek medical attention if feeling unwell.

4. Inhalation: No significant inhalation hazard should be considered under conditions of normal use. Consult a physician if necessary.

5. Most important symptoms and effects, both acute and delayed: Not applicable.

6. Instructions for physicians: symptomatic treatment.

SECTION 5. Fire-Fighting measures

1. Suitable extinguishing media: Carbon dioxide (CO₂), foam, dry chemical.
2. Unsuitable extinguishing media: No information available.
3. Special hazards arising from the substance or mixture: No information available.
4. Protective equipment and precautions for firefighters: Standard procedure for chemical fires.

SECTION 6. Accidental release measures

1. Personal precautions: Always wear recommended Personal Protective Equipment. Use personal protection equipment.
2. Methods for cleaning up: Absorb with inert absorbent material.
3. Environmental precautions: No special environmental precautions required. See Section 12 for more information.

SECTION 7. Handling and storage

1. Handling: Always wear recommended Personal Protective Equipment. Wear personal protective equipment.
2. Storage: 2-8°C
3. Specific end use (s): For research use only.

SECTION 8. Exposure controls/personal protection

1. Exposure Limits: We are not aware of any national exposure limit.
2. Engineering measures: Ensure adequate ventilation, especially in confined areas.
3. Personal protective equipment: Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment of each laboratory that may use the material.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand Protection: Impervious gloves.

Eye protection: Safety glasses with side-shields. Skin and body protection: Lightweight protective clothing.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

4. Environmental exposure controls: No special environmental precautions are required.

SECTION 9. Physical and chemical properties

Physical and chemical Properties	Information	Physical and chemical Properties	Information
Form	Lyophilized	Flammability(solid gas)	No Data
Appearance	No Data	Qxidising properties	No Data
Odour	Odourless	Water solubility	No Data
Odour Threshold	Tasteless	Upper explosion limit	No Data
Boiling point / boiling range	No Data	Lower explosion limit	No Data
Melting point / melting range	No Data	Vapour Pressure	No Data
flash point	No Data	vapour density	No Data
Autoignition temperature	No Data	Viscosity	No Data
Evaporation rate	No Data	pH value	No Data

SECTION 10. Stability and reactivity

1. Chemical stability: Stable under normal conditions.
2. Reactivity: None known.
3. Possibility of hazardous reactions: Hazardous reaction has not been reported.
4. Conditions to avoid: No information available.
5. Incompatible materials: Strong acids. Strong oxidants.
6. Hazardous decomposition products: No data available

SECTION 11: Toxicological information

1. Acute toxicity: No toxicology information is available.
2. Principle Routes of exposure potential Health effects.

Eyes: May cause eye irritation in susceptible individuals.

Skin: May cause skin irritation in susceptible individuals.

Inhalation: May be harmful by inhalation.

Ingestion: May be harmful if swallowed.

Carcinogenic effects: None.

Mutagenic effects: None.

Reproductive toxicity: None.

Sensitization: None.

SECTION 12: Ecological information

1. Ecotoxicity: Contains no substances known to be hazardous to the environment or non-degradable in wastewater treatment plants.

2. Mobility: No information available.

3. Biodegradation: No information available.

4. Bioaccumulation: No information available.

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

Proper Shipping Name: Not classified as dangerous according to shipping regulations.

Hazard Class: None.

Subsidiary class: None

Packing group: None.

UN-No: None.

SECTION 15: Regulatory information

1. International Inventories: No information available.

2. China: No information available.

SECTION 16: Other information

1. Indication of changes: GHS aligned.

2. Training instructions: Use as instructed.

3. Further information: The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. This SDS has been prepared for use with this product only.

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End of Safety Date Sheet