
Material Safety Data Sheet

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1. Product and Company Information

Product Name 2×RNA Loading Buffer
Cat. No. GH201
Company TransGen Biotech Co., Ltd.
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2. Composition

| Chemical Name | CAS No. | Concentration or concentration range (w/w %) |
|-------------------------------|---------|---|
| Formamide 75-12-7 (80-100) | 75-12-7 | 80-100 |

It is recommended to handle all chemicals with caution.

3. Hazards Identification

Health Hazards

| | |
|--|-------------|
| Specific target organ toxicity-repeated exposure | Category 2 |
| Carcinogenicity | Category 2 |
| Reproductive toxicity | Category 1B |

Physical Hazards

No classification

Environmental Hazards

No classification

Signal Word

Danger

Hazard Pictograms



Hazard Statements

H360- May damage fertility or the unborn child if swallowed

H351- Suspected of causing cancer if swallowed

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

4. First-aid Measures

| | |
|---------------------|---|
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. |
| Skin contact | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required. |
| Inhalation | Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician. |
| Ingestion | Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. If swallowed, rinse mouth with water (only if the person is conscious). Risk of serious damage to the lungs. Get medical attention if symptoms occur. |
| Notes to physicians | Treat symptomatically. |

5. Fire-fighting Measures

Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | Water spray, Carbon dioxide (CO ₂), Foam, Dry powder |
|------------------------------|--|

Unsuitable extinguishing media No information available

Specific hazards

Not known

Special protective equipment and precautions for firefighters

Wear self-contained positive-pressure breathing apparatus and protective suit.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid exposure to vapor; Avoid breathing vapors or mists; Ensure adequate ventilation; Avoid contact with skin, eyes or clothing; Use personal protection equipment.

Methods and material for containment and cleaning up

Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

Environmental precautions

Should not be released into the environment. Prevent product from entering drains.

7. Handling and Storage

Precautions for safe handling

Always wear recommended Personal Protective Equipment. Wash hands before breaks and immediately after handling the product. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or mists. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep away from combustible material.

Conditions for safe storage

Keep container sealed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Prevent direct sunlight. Store in accordance with local regulations.

Specific use

For research use only. Not for diagnostic use.

8. Exposure Controls/Personal Protection

Control parameters

| | |
|------------------------------|------------------------------|
| MAC(mg/m ³) | No standards available |
| PC-TWA(mg/m ³) | 20 ppm, 37 mg/m ³ |
| PC-STEL(mg/m ³) | No standards available |
| TLV-C(mg/m ³) | No standards available |
| TLV-TWA(mg/m ³) | No standards available |
| TLV-STEL(mg/m ³) | No standards available |

Exposure controls

Personal protective equipment

| | |
|--------------------------|---|
| Respiratory protection | If ventilation is poor, use respirators with their components tested and approved under appropriate government standards. |
| Hand Protection | Glove material: Nitrile rubber; Thickness: 5 mm. Break through time: >1 hour. |
| Eye Protection | Tightly sealed goggles |
| Skin and Body Protection | Wear laboratory coat for body protection. |
| Hygiene Measures | Operate in accordance with good industrial hygiene and safety practice. |

Environmental exposure control

Should not be released into the environment. Prevent product from entering drains.

9. Physical and Chemical Properties

General information

| | |
|---------------------|-------------------|
| Form | Liquid |
| Solubility in water | Soluble |
| Others | No data available |

10. Stability and Reactivity

| | |
|--------------------------|---|
| Reactivity | None known. |
| Stability | Stable under normal storage conditions |
| Possibility of hazardous | Hazardous reaction has not been reported. |

reactions

| | |
|----------------------------------|--|
| Conditions to avoid | High temperature. |
| Incompatible materials | Oxidizing agent. Acids. Bases. Sulphur trioxide. Iodine. |
| Hazardous decomposition products | Carbon monoxide. Hydrogen cyanide. Nitrogen oxides. |

11. Toxicological Information

Information on toxicological effects

| | |
|--|--------------------|
| Acute Toxicity | No data available. |
| Oral-rat LD50 (mg/kg) | 3200 |
| Dermal-rat LD50 (mg/kg) | 13500 |
| Inhalation-rat LC50 (mg/m ³) | 3900 |
| Subcutaneous-rat LD50 (mg/kg) | No data available |
| Intravenous-rat LD50 (mg/kg) | No data available |
| Peritoneal cavity-rat LD50 (mg/kg) | No data available |
| Oral-mouse LD50 (mg/kg) | No data available |
| Dermal-mouse LD50 (mg/kg) | No data available |
| Intravenous-mouse LD50 (mg/kg) | No data available |
| Peritoneal cavity-mouse LD50 (mg/kg) | No data available |

Principal Routes of Exposure

| | |
|---|---|
| Acute toxicity | Data are conclusive but insufficient for classification. |
| Skin corrosion/irritation | Data are conclusive but insufficient for classification. |
| Serious eye damage/irritation | Data are conclusive but insufficient for classification. |
| Respiratory or skin sensitization | Data are conclusive but insufficient for classification. |
| Specific target organ toxicity (STOT) – single exposure | Data are conclusive but insufficient for classification. |
| Specific target organ toxicity (STOT) – repeated exposure | Target organ(s): : Cardiovascular System, Hematopoietic System. |
| Carcinogenicity | Data are conclusive but insufficient for classification. |
| Germ cell mutagenicity | Data are conclusive but insufficient for classification. |
| Reproductive toxicity | May cause adverse reproductive effects - such as |

| | |
|-------------------|--|
| | birth defect, miscarriages, or infertility. |
| Aspiration hazard | Data are conclusive but insufficient for classification. |

12. Ecological Information

| | |
|-------------------------------|--|
| Ecotoxicity | The environmental impact of this product has not been completely investigated. |
| Mobility in soil | No data available |
| Persistence and degradability | Readily biodegradable |
| Other adverse effects | No data available |

13. Disposal Considerations

Waste should be avoided or minimized as much as possible. Empty containers or liners may retain some product residues. The substance and its container must be disposed of in accordance with approved disposal techniques. The disposal of the product, its solution or any by-products should refer to relevant national and local regulations.

14. Transport Information

| | |
|-------------------------------|--|
| UN number | Not Applicable |
| UN proper shipping name | Not Applicable |
| Transport hazard class(es) | Not Applicable |
| Packing group | Not Applicable |
| Environmental hazards | Not Applicable |
| Transportation considerations | Package should be intact upon departure. Loading should be handled carefully. During transportation, prevent the containers from leakage, collapse, fall or damage. Transportation combined with oxidants, edible chemicals, etc. is strictly prohibited. It should be protected from exposure to sun light, rain and high temperature during transportation. Transport vehicles should be equipped with corresponding types and quantities of fire-fighting equipment and spills emergency treatment equipment during transportation. |

The vehicle should be thoroughly cleaned after transportation. Road transportation must follow the prescribed route.

15. Regulatory Information

The following laws, regulations and standards have made corresponding provisions on the safe use, storage, transportation, loading and unloading, classification and marking of chemicals: The Production Safety Law of the People's Republic of China (adopted at the 27th meeting of the Standing Committee of the Ninth People's Congress on June 29, 2002); The Environmental Protection Law of the People's Republic of China (adopted at the 11th meeting of the Standing Committee of the Seventh National People's Congress on December 26, 1989).

16. Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation. These recommendations are based on prudent professional judgment. This information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. **Since the Company cannot control the actual methods, quantities, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. The information in this MSDS does not constitute a warranty of marketability or suitability for any particular purpose, expressed or implied.**

End of Safety Data Sheet