

# Safety Data Sheet



Revision Date 2021-06-24

Revision Number 6

## 1. Identification

### Product identifier

**Product Name** RNA Loading Buffer

### Other means of identification

**Product Code** SD0521

**UN number or ID number** UN3287

**Synonyms** No information available

### Recommended use of the chemical and restrictions on use

**Identified uses** No information available

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### Supplier

USA:

Takara Bio USA, Inc.

1290 Terra Bella Avenue

Mountain View, CA 94043

Phone: 800.662.2566/888.251.6618

Web: www.takarabio.com

### Emergency telephone number

**Emergency telephone** In case of emergency, call PERS (Professional Emergency Resource Services)  
1-800-633-8253 (US) or 801-629-0667 (international).

## 2. Hazard(s) identification

### Classification

Reproductive toxicity

Category 1B

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

May damage fertility or the unborn child

**Appearance** Clear, colorless**Physical state** Liquid**Odor** Odorless**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other information**

May be harmful if inhaled.

### 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Formamide	75-12-7	90 - 100	*

### 4. First-aid measures

**Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air.

**Eye contact**Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.  
Consult a physician.**Skin contact**

Wash skin with soap and water.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects, both acute and delayed****Symptoms**

No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion Data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store locked up.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Formamide	S*	(vacated) TWA: 20 ppm	TWA: 10 ppm

75-12-7	TWA: 1 ppm	(vacated) TWA: 30 mg/m <sup>3</sup> (vacated) STEL: 30 ppm (vacated) STEL: 45 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup>
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**Appropriate engineering controls**

**Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** No special protective equipment required.

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Physical state** Liquid  
**Appearance** Clear, colorless  
**Color** Colorless  
**Odor** Odorless  
**Odor Threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point/boiling range (°C)	No data available	None known
Flash point	No data available	Open cup
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic Viscosity	No data available	None known

**Other information**

**Explosive properties** No information available  
**Oxidizing properties** No information available  
**Softening point** No information available  
**Molecular Weight** No information available  
**VOC Content (%)** No information available

Liquid Density	No information available
Bulk Density	No information available

## 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to Avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

Inhalation	May be harmful if inhaled.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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### Acute toxicity

#### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	5,615.10 mg/kg
ATEmix (dermal)	6,041.00 mg/kg
ATEmix (inhalation-dust/mist)	21.164 mg/l

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Formamide 75-12-7	= 5577 mg/kg ( Rat )	= 6 g/kg ( Rabbit )	> 21 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Formamide 75-12-7	A3	-	-	-

**Legend**

**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target organ effects** Respiratory system, Eyes, Skin, Central nervous system, Reproductive system.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Formamide 75-12-7	500: 72 h Desmodesmus subspicatus mg/L EC50 500: 96 h Desmodesmus subspicatus mg/L EC50	9135: 96 h Brachydanio rerio mg/L LC50 static	-	500: 48 h Daphnia magna mg/L EC50

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

### Component Information

Chemical name	Partition coefficient
Formamide 75-12-7	-0.82

**Other adverse effects** No information available.

## 13. Disposal considerations

**Waste treatment methods**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

**14. Transport information****DOT**

<b>UN number or ID number</b>	UN3287
<b>Proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Special Provisions</b>	IB2, T11, TP2, TP27
<b>DOT Marine Pollutant</b>	NP
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II
<b>Emergency Response Guide Number</b>	151

**TDG**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Special Provisions</b>	16
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II

**MEX**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Technical Name</b>	{ TCODE="TNX" } : { COMP="'75-12-7','MC01510'" }
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II
<b>Special Provisions</b>	274

**ICAO (air)**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II
<b>Special Provisions</b>	A3, A4, A137

**IATA**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Technical Name</b>	Formamide
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II
<b>Special Provisions</b>	A3, A4, A137
<b>ERG Code</b>	6L

**IMDG**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>EmS-No</b>	F-A, S-A
<b>Special Provisions</b>	274

<b>Marine pollutant</b>	NP
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II

**RID**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Classification code</b>	T4
<b>Special Provisions</b>	274
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II

**ADR**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Classification code</b>	T4
<b>Tunnel restriction code</b>	(D/E)
<b>Special Provisions</b>	274
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II, (D/E)

**ADN**

<b>UN number or ID number</b>	UN3287
<b>UN proper shipping name</b>	Toxic liquid, inorganic, n.o.s.
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	II
<b>Classification code</b>	T4
<b>Special Provisions</b>	274, 802
<b>Description</b>	UN3287, Toxic liquid, inorganic, n.o.s. (Formamide), 6.1, II
<b>Ventilation</b>	VE02
<b>Equipment Requirements</b>	PP, EP, TOX, A

**15. Regulatory information****International Inventories**

<b>TSCA</b>	-.
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<b>DSL/NDL</b>	-.
<b>EINECS/ELINCS</b>	-.
<b>ENCS</b>	-.
<b>IECSC</b>	-.
<b>KECL</b>	-.
<b>PICCS</b>	-.
<b>AICS</b>	-.

**Legend:****TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.



**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Formamide 75-12-7	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

<b>16. Other information</b>
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<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 3 *	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X
<i>Chronic Hazard Star Legend</i>		* = Chronic Health Hazard		

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	Time weighted average	STEL	Short term exposure limit
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AELG(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)

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National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision Date** 2021-06-24  
**Revision Note** No information available.

**Disclaimer**

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**End of Safety Data Sheet**