



Safety Data Sheet

This safety data sheet was created pursuant to the requirements of: OSHA 29 CFR 1910.1200

1. Identification

Product Identifier

Product name 2x PCR Master Mix

Other means of identification

Product Number 200042, 200050, 200051

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use This product is for research and development only.

Restrictions on use No information available.

Details of the supplier of the safety data sheet

Supplier Address

RNA Connect Inc.
23 Business Park Dr
Branford, CT 06405
USA

Emergency telephone number

Company Phone Number

+1 475-338-2120 ext. 6

E-mail address

safety@rnaconnect.com

2. Hazard(s) identification

Classification

Most Important Hazards GHS Classification. Few adverse human health effects are anticipated.

Hazard class and category

Physical Hazards Classification not possible.

Health hazards

Acute toxicity Category 5

Skin corrosion/irritation Category 3

Serious Eye damage/irritation Classification not possible.

Environmental hazards Classification not possible.

Hazards not otherwise classified (HNOC)

Not available.

Label elements**Signal word**

Warning

Hazard statements

May be harmful if swallowed. Causes mild skin irritation.

Response

Call a POISON CENTER or doctor / physician if you feel unwell. If skin irritation occurs: Get medical advice / attention.

3. Composition/information on ingredients**Mixture**

Chemical name	CAS No. (EC No.)
Tris(Hydroxymethyl)aminomethan	77-86-1
Magnesium sulfate	7487-88-9
Deoxyadenosine triphosphate	1927-31-7
Deoxycytidine triphosphate	102783-51-7
Deoxyguanosine triphosphate	93919-41-6
Deoxythymidine triphosphate	18423-43-3
Additive	Nondisclosure
DNA Polymerase	EC 2.7.7.7
Monoclonal antibody	-
Glycerol	56-81-5
Poly(oxyethylene) Nonylphenylether	9016-45-9

Components contributing to the hazard**Additive**

Chemical name	Synonyms	CAS No. (EC No.)	Chemical formula	Percentage
Glycerol	Glycerin	56-81-5	$\text{CH}_2\text{OHCHOHCH}_2\text{OH}$	< 5%
Poly(oxyethylene) Nonylphenylether	Nonidet P-40	016-45-9	$\text{HO}(\text{C}_2\text{H}_4\text{O})_n\text{-C}_6\text{H}_4\text{-C}_9\text{H}_{19}$	< 0.01%
Additive	Nondisclosure	Nondisclosure	Nondisclosure	< 3%

4. First-aid measures**Description of first aid measures****Inhalation**

In case of irritation by inhaling this product, move affected person to fresh air and await recovery. If irritation persists, seek immediate medical attention.

Eye contact

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

Skin contact

Wash with clean water, immediately.

Ingestion Rinse mouth. Do NOT induce vomiting. If indisposition continues, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Effects of Exposure 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 Water, Carbon Dioxide, Foam, Dry Chemical Powder.

Special protective equipment and precautions for fire-fighters Fire-fighting should be done from the windward side of fire area. Fire fighters should wear proper protective equipment in case of large-scale fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective gear to avoid eye/skin contact and inhalation.

Environmental precautions Avoid disposition to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up Use cloth, paper or anything similar to soak up the solution leaking out of the container. Take up under vacuum using dust collecting filter.

7. Handling and storage

Precautions for safe handling

Technical Measures Wear protective equipment and avoid contact with eyes and skin. Handle with ventilation and local exhaust system.

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Technical Measures Store in the laboratory bottle.

Storage Conditions Store at -20°C

Incompatible Products Oxidizers

Packaging Materials Store in the original package.

8. Exposure controls/personal protection

Control parameters

Exposure Limits	Additive	Poly(oxyethylene) Nonylphenylether	Glycerol
JSOH OEL	Not established	Not established	Not established
ACGIH TLV	Not established	Not established	10mg/m3
OSHA PEL	Not established	Not established	total dust:15mg/m3TWA respirable fr.: 5mg/m3TWA

Appropriate Engineering controls

Engineering Controls Set up good ventilation and exhaust system in the work area.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical safety goggles.

Skin and body protection Long sleeves and chemical safety gloves to prevent contact with skin.

Respiratory protection Dust mask to prevent inhalation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid

Appearance Clear

Color None

Odor None

Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks * Method</u>
pH	7.0-9.0	
Melting point / freezing point	No data available	None known
Initial boiling point / range	No data available	None known
Flash point	No flammability due to aqueous solution, but glycerol whose flash point 1360 may stay behind after volatilization.	Not Available
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		

Upper flammability or explosive limits	No data available	None known
Lower flammability or explosive limits	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	Soluble.	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Specific gravity	1.0-1.2	None known

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight 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 at -20°C
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Strong heat and direct sunlight.
Incompatible materials	Strong oxidizers and strong reducers.
Hazardous decomposition products	Classification not possible

11. Toxicological information**Information on likely routes of exposure**

Inhalation	Specific test data for the substance or mixture is not available.
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.

Acute toxicity

Classification not possible

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

Skin corrosion/irritation May cause irritation.

Serious eye damage/eye irritation May cause irritation.

Respiratory or skin sensitization May cause irritation.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects May cause digestive tract irritation.

Interactive effects No information available.

Toxicological information on the component of this product

Chemical name	Acute toxicity (LD50)	Skin corrosion/irritation	Serious eye damage/irritation
Glycerol	Oral-mouse: 4090mg/kg Oral-rat: 12.6g/kg	Category 3	Category 2B
Poly(oxyethylene) Nonylphenylether	Oral-mouse: 3500mg/kg Oral-rat: 4190mg/kg	Category 3	Category 2A
Additive	Oral-rat: 50mg/kg*	Category 2	Category 3

*Acute toxicity (LD50) of Additive is estimated from similar agent.

12. Ecological information**Ecotoxicity**

Persistence and degradability Poly(oxyethylene) nonylphenylether isn't biodegradable. Enzyme, protein and glycerol are biodegradable.

Bioaccumulation No information available.

Mobility Soluble in water and diffusible into water environment.

13. Disposal considerations**Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

<u>DOT</u>	Not regulated.
<u>TDG</u>	Not regulated.
<u>MEX</u>	Not regulated.
<u>ICAO (air)</u>	Not regulated.
<u>IATA</u>	Not regulated.
<u>IMDG</u>	Not regulated.
<u>RID</u>	Not regulated.
<u>ADR</u>	Not regulated.
<u>AND</u>	Not regulated.
Specific precautions	To prevent packages from breaking, handle with care. Store at about -20°C when it is transported.

15. Regulatory information

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).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Water CAS 7732-18-5

16. Other information

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) (AEGL(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)
National Institute of Technology and Evaluation (NITE)
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)
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

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Disclaimer

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End of Safety Data Sheet