

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: Monkeypox Virus Nucleic Acid Detection Kit (Fluorescent PCR)

Supplier: HANGZHOU BIOER TECHNOLOGY CO.,LTD

Address: 1192 BinAn Rd,Hi-tech(Binjiang) District, Hangzhou, P.R.China

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Description1: MPXV Primer/Probe Mix

Components	CAS Number	Weight %
MPXV Primer	N/A	1
MPXV Probe	N/A	0.5
NC Primer	N/A	0.5
NC Probe	N/A	0.5
Nuclease-free water	7732-18-5	97.5

Description2: MPXV PCR Buffer

Components	CAS Number	Weight %
Glycerol	56-81-5	5
TritonX-100	9036-19-5	0.01
Tween 20	9005-64-5	0.02
Potassium chloride	7447-40-7	1
Magnesium chloride	7786-30-3	0.2
dATP	1927-31-7	0.5
dTTP	18423-43-3	0.5
dCTP	102783-51-7	0.5
dGTP	93919-41-6	0.5
dUTP	102814-08-4	1
D-(+)-Trehalose dihydrate	6138-23-4	3
Taq DNA Polymerase	9012-90-2	1
Uracil-DNA Glycosylase	59088-21-0	0.1
Nuclease-free water	7732-18-5	86.67

Description3: Positive control

Components	CAS Number	Weight %
Nucleic acid	9014-25-9	1
Nuclease-free water	7732-18-5	99

Description4: Negative control

Components	CAS Number	Weight %
Nucleic acid	9014-25-9	1
Nuclease-free water	7732-18-5	99

3. HAZARDS IDENTIFICATION

Emergency Overview

NFPA Ratings: Health= 1 Flammability= 0 Reactivity= 0 Special= I

Special Definitions: A=Allergen CA=Carcinogen CO=Corrosive F=Flammable H=Harmful I=Irritant Ox=Oxidizer PB=Potential Biohazard R=Reproductive S=Sensitizer T=Toxic T+=Highly Toxic W=Water Reactive

Principle routes of exposure: Ingestion, skin and/or eye contact.

Inhalation: Avoid breathing vapors or mists. May cause irritation of respiratory tract.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin contact: Prolonged skin contact may cause irritation.

Eye contact: May cause irritation.

Sensitization or Odor threshold: None.

Medical conditions aggravated by exposure: None known.

Additional information: GLYCEROL - May cause kidney injury with chronic exposure.

4. FIRST AID MEASURES

Inhalation: Consult a physician. Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin contact: Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Ingestion: Call a physician immediately. Do not induce vomiting without medical advice.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Notes to physician: None determined.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use dry chemical, CO₂, water spray or "alcohol" foam.

Unusual hazards: None known.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Evacuate personnel to safe areas. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Do not let product enter drains.

Methods for cleaning up: Never return spills in original containers for re-use. Soak up with oil absorbent material. Sweep up or vacuum (if powder) or soak up with inert absorbent material (if liquid), then place into a suitable clean, dry, closed container, and label for disposal.

7. HANDLING AND STORAGE

Handling: Protect from contamination. Wear personal protective equipment.

Storage: No special precautions required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures: Not applicable.

Personal Protective Equipment

Respiratory protection: Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow the OSHA regulation, 29CFR1910.134. Always use a NIOSH approved respirator when necessary.

Hand protection: Wear appropriate protective gloves to prevent skin contact. Replace torn or punctured gloves promptly.

Skin and body protection: Wear appropriate body protection to prevent skin contact.

Eye protection: Wear appropriate eye protection to prevent eye contact.

Hygiene measures: When using, do not eat, drink or smoke. Keep away from food and drink. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: Colorless.

Odor: None.

pH: 9-9.3

Physical state: Liquid.

Solubility in water: Soluble.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Polymerization: None under normal processing.

Hazardous decomposition products: GLYCEROL - decomposes upon heating above 290C, forming corrosive gas (acrolein).

Materials to avoid: Strong acids. Strong bases. Strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Components	NIOSH - Selected LD50s and LC50s:	NIOSH Pocket Guide - Target Organs:
Glycerol	=12600 mg/kg Oral LD50 Rat >21900 mg/kg Dermal LD50 Rat >570 mg/m ³ Inhalation LC50 Rat 1h	respiratory system skin eyes kidneys
TritonX-100	>3000 mg/kg Oral LD50 Rat	
Tween 20	=36700 µL/kg Oral LD50 Rat	
Potassium chloride	=2600 mg/kg Oral LD50 Rat	

Inhalation: No additional data available

Skin: No additional data available

Oral: No additional data available

Mutagenic effects: No data is available on the product itself

Reproductive toxicity: No data is available on the product itself

12. ECOLOGICAL INFORMATION

Bioaccumulation: Not determined

Aquatic toxicity: No data is available on the product itself

Ecotoxicity effects: No data is available on the product itself

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

14. TRANSPORT INFORMATION

Is product hazardous to ship? No.

DOT

Proper shipping name: None

UN Number: Not applicable **Hazard class:** Not applicable **Subsidiary risk:** Not applicable **Packing group:** Not applicable

ICAO/IATA

Proper shipping name: None

UN Number: Not applicable **Hazard class:** Not applicable **Subsidiary risk:** Not applicable **Packing group:** Not applicable

15. OTHER INFORMATION

Reason for revision: Not applicable

References: None.

Additional advice: None

Prepared by: HANGZHOU BIOER TECHNOLOGY CO.,LTD

End of Safety Data Sheet