

MATERIAL SAFETY DATA SHEET

IDENTIFICATION

Details of the supplier of the safety data sheet : Company : Nanohelix Co., Ltd.

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Quality control, Nanohelix Co., Ltd.

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Product Name : Direct PCR [3G] 2x Direct PCR premix (with UDG)

U.N.Number : None allocated. : None allocated. Dangerous Goods Class

and Subsidiary Risk

Hazchem Code : None allocated. Poison Schedule : None allocated.

: Use for quantification of target DNA. Use

2 HAZARDS IDENTIFICATION

Classification of Hazards and: No relevant classification.

dangerousness

Pictorial symbol : No information available. Category : No information available. Hazards and dangerousness : No information available.

Prevention methods

Prevention : No information available. : No information available. Action Store : No information available. Discard : No information available.

3 COMPOSITION/ INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

: The product is a mixture of the non hazardous substances.

The exact concentration percentages of the non hazardous Description

substances may be withheld as a Nanohelix Co., Ltd. trade Hazardous ingredients secret.

Name	CAS No.	Weight (%)
Glycerol	56-81-5	5%<=10%

FIRST-AID MEASURES

General advice : Show this material safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air. If symptoms persist, call a physician. In case of skin contact : Wash off immediately with soap and plenty of water while

removing all contaminated clothes and shoes. If symptoms persist, call a physician.

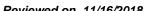
I In case of eye contact : Remove contact lenses. Protect unharmed eye. Rinse

thoroughly with plenty of water for at least 15 minutes and

consult a physician.

: If accidentally swallowed obtain immediate medical attention. If swallowed

Rinse mouth with water. Never give anything by mouth to an





unconscious person.

Most important symptoms and

effects, both acute and delayed

: No information available.

Notes to physician : No information available.

5 FIRE FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Specific hazards during fire

: Exposure to decomposition products may be a hazard to

fighting

health.

Hazardous combustion products: Carbon monoxide, carbon dioxide and unburned hydrocarbons

(smoke). Carbon oxides Nitrogen oxides (NOx)

Specific extinguishing methods: In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for: Wear self-contained breathing apparatus for firefighting if

fire-fighters

necessary.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective: Use personal protective equipment. Avoid breathing dust/

equipment and emergency

fume/ gas/ mist/ vapors/ spray

procedures

Methods and materials for

containment and cleaning up

: Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Advice on protection against fire: Normal measures for preventive fire protection.

and explosion

Advice on safe handling : For personal protection see section 8. Smoking, eating and

drinking should be prohibited in the application area.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Hand protection

Remarks : The choice of an appropriate glove does not only depend on its

> material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration

of contact).

Eye protection : Safety glasse.

Skin and body protection : Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

Footwear protecting against chemicals.

Hygiene measures : Keep away from food and drink. When using do not eat, drink or

smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Color : No data available. Odor : Characteristic





Odor Threshold : No data available. Нα : No data available. Melting point/range : No data available.. Boiling point/boiling range : No data available. Flash point : No data available. Evaporation rate : No data available. : No data available. **Burning rate** Upper explosion limit : No data available. Lower explosion limit : No data available. Vapor pressure : No data available. Relative vapor density : No data available. : No data available. Relative density Density : No data available.

Solubility(ies)

Water solubility : No data available. : No data available. Solubility in other solvents Partition coefficient: : No data available.

n- octanol/water

: Not determined. Autoignition temperature Thermal decomposition : No data available.

Viscosity

Viscosity, dynamic : No data available. Viscosity, kinematic : No data available. Explosive properties : No data available. Oxidizing properties : No data available.

10 STABILITY AND REACTIVITY

: No decomposition if stored and applied as directed. Reactivity Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous

reactions

: Stable under recommended storage conditions. Hazardous decomposition products formed under fire conditions

Hazardous Polymerization : No data available. Conditions to avoid : No data available. Incompatible materials : No data available.

Hazardous decomposition

products

: No decomposition if stored and applied as directed.

11 TOXICOLOGICAL INFORMATION

Acute toxicity : Not classified based on available information.

Product

Acute oral toxicity : Acute toxicity estimate - > 5,000 mg/kg

Method - Calculation method

Acute inhalation toxicity : No data available.

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Not data available.

Ingredients

glycerol

Acute oral toxicity : LD₅₀ Oral (Rat): 12,000 mg/kg Acute dermal toxicity : LD₅₀ Dermal (Rabbit): 10,000 mg/kg



Skin corrosion/irritation : Not classified based on available information.

Product : Remarks - May cause skin irritation in susceptible persons.

Ingredients

glycerol : Species - Rabbit

> Exposure time - 24 h Result - Mild skin irritation

Serious eye damage/eye

irritation

: Not classified based on available information

Product : Remarks - May irritate eyes.

Ingredients

glycerol : Species - Rabbit

> Result - Mild eye irritation Exposure time - 24 h

Respiratory or skin : Skin sensitization: Not classified based on available

sensitization information. Respiratory sensitization: Not classified based on

available information.

Germ cell mutagenicity : Not classified based on available information. Carcinogenicity : Not classified based on available information.

IARC : No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC

OSHA : No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP : No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated

carcinogen by NTP.

Reproductive toxicity : Not classified based on available information. STOT-single exposure : Not classified based on available information. STOT-repeated exposure : Not classified based on available information. Aspiration toxicity : Not classified based on available information.

Further information : No data available.

12 ECOLOGICAL INFORMATION

Ecotoxicity

Product

: No data available. Toxicity to fish : No data available. Toxicity to algae Toxicity to bacteria : No data available.

Ingredients glycerol

> : LC₅₀ (Leuciscus idus (Golden orfe)): > 250 mg/l Exposure time: Toxicity to fish

48 h

Persistence and degradability

Bioaccumulative potential

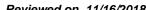
: No data available.

: Bioaccumulation - No data available. **Product**

: No data available. Mobility in soil

Other adverse effects

Product





Ozone-Depletion Potential : Regulation - 40 CFR Protection of Environment; Part 82

Protection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks - This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air

Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological : No data available.

information

13 DISPOSAL CONSIDERATION

Disposal methods : Empty containers should be taken to an approved waste

handling site for recycling or disposal.

14 TRANSPORT INFORMATION

UNRTDG : Not regulated as a dangerous good. IATA-DGR : Not regulated as a dangerous good. IMDG-Code : Not regulated as a dangerous good.

Transport in bulk according to : No data available.

Annex II of MARPOL 73/78

and the IBC Code

Domestic regulation 49 CFR: Not regulated as a dangerous good.

15 REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 311/312 Hazards : No SARA Hazards.

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with

> known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

California Prop. 65 : This product does not contain any chemicals known to the State

of California to cause cancer, birth, or any other reproductive

defects.

TSCA list

No substances are subject to TSCA 12(b) export notification requirements.

16 OTHER INFORMTION

The data provided in this Material Safety Data Sheet is based on current experience and knowledge. The purpose of this Material Safety Data Sheet is to describe products in terms of their safety requirements. This data given is designed only as a guidance for safe handling, use, storage, transportation, disposal and is not to be considered quality specification or warranty. The above details do not imply any guarantee concerning composition or performance of this product.