Novel Green Plus (20000X)

Identification of the preparation / Substance and of the company

Product Name：Novel Green Plus(20000X)
Catalog Number：LD003-0500
Use of the preparation：For laboratory use.
Suitable as the stain for preparing DNA ladders and samples for loading on the agarose or polyacrylamide gels.
Company identification：BIO-HELIX Co., LTD.
Site：http://www.bio-helix.com
E-mail：info@bio-helix.com

Composition / Information on ingredients

General information：The product contains: Solvents
Ingredients：
Dimethyl sulfoxide (DMSO)　> 90 % (v/v)　EC#200-664-3 CAS#67-68-5

Hazards identification

Warning!
May cause eye, skin and respiratory tract irritation.
Combustible liquid and vapor.

Human health hazards：
Inhalation：High concentration：May cause respiratory system irritation.
Skin contact：May cause skin irritation. May be absorbed through the skin.
Eye contact：May cause temporary eye irritation. Exposed individuals may experience eye redness, tearing and discomfort.
Ingestion：May be uncomfortable if swallowed.
Chronic exposure：The liver and kidneys injury may occur.

Target organ(s)：Eye, Skin, Respiratory system, Kidney and Liver.

Hazards deriving from physical-chemical properties：The product is combustible, but not flammable.

OSHA regulatory status：This product is hazardous according to OSHA 29CFR 1910.1200.

Environmental hazards：N.A.

First Aid Measures

Ingestion：
If swallowed, rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Give medical attention if any discomfort continues.
Inhalation：
If inhaled, move injured person into fresh air and keep person calm under observation. Give medical attention if any discomfort continues.
Skin contact：
Immediately flush skin with water for at least 15 minutes while removing contaminated clothes. Get medical attention if irritation persists after washing.
Eye contact：
In case of contact, immediately flush with plenty of water for up to 15 minutes.
Remove any contact lenses and open eyes wide apart. Get medical assistance if irritation occurs.

Fire-fighting measures

Suitable extinguishing media：Water spray, Carbon Dioxide, dry chemical powder or appropriate foam.
Not suitable extinguishing media：None.
Special fire fighting procedures：
Use standard firefighting procedures. Containers close to fire should be removed or cooled with water.
Unusual fire and explosion hazards：During fire, gases hazardous to health may be formed.
Hazardous combustion products：Carbon dioxide, carbon monoxide, formaldehyde, sulfur oxides.
Protective equipment：Wear self-contained breathing apparatus and protective clothing.
Follow the general fire precautions indicated in the workplace.
Flammable class：NFPA rating fire=2

Accidental release measures

Personal precautions：
Wear appropriate gloves (see Section 8), safety glasses to clean small releases/spillage. In case of vapor and spray mist, wear suitable respiratory protection means.
Environmental precautions：Avoid discharge into drains, water courses or onto the ground.
Methods for cleaning up：
Absorb spillages with suitable absorbent material. Wash the area after the spillage is completely removed.
Notification procedures：Inform authorities if large amounts are involved.

Handling and storage

Additional information：N.A.

Handling：Local exhaust is recommended. Wear appropriate personal protection measures (see Section 8) to prevent skin or eye contact.

Storage：Store in closed original container in a dry place at -20°C. Keep away from food, drink and animal feeding stuffs.

Exposure controls / personal protection

Ingredients with limit values that require monitoring at the workplace：

The exposure limit of DMSO (vapor and mist)is 250 ppm according to AIHA WEEL TWA.

General protective and hygienic measures：

The usual precautionary measures are the same as for chemicals handling.

Engineering measures：Provide adequate ventilation.

Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Personal protection：

- Respiratory protection: OSHA Standard 63FR 1152, January 8, 1998-approved respirator.
- Hand protection：Wear protective gloves. Be aware that the liquid may penetrate gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
- Eye protection：Wear approved safety goggles in case risk of splashes.
- Skin protection：Wear suitable protective clothing. Apron and long sleeves are recom-mended.

Physical and chemical properties

Appearance：Liquid.

Color：Orange

Odor：Odorless or weak

pH-value at 25°C：No data available.

Boiling point：No data available.

Melting point：No data available.

Freezing point：No data available.

Flash Point：No data available.

Flammability / auto flammability：No data available.

Explosive properties：No data available.

Oxidizing properties：No data available.

Vapor pressure：No data available.

Relative density at 20°C：No data available.

Solubility in/miscibility with water：Soluble
Fat solubility：No data available.
Vapor density：No data available.
Evaporation rate：No data available.
Conductivity：No data available.
Viscosity：No data available.

Stability and reactivity

Stability：Stable under normal temperature conditions.
Conditions to avoid：No conditions which may cause dangerous reactions.
Materials to avoid：Strong oxidizing agents, strong bases.
Hazardous decomposition products：
At elevated temperature: Carbon dioxide, carbon monoxide, formaldehyde, sulfur oxides.

Toxicological information

Product information given on this section applies to concentrated solutions of Dimethyl sulfoxide or the substance in its pure form.
Acute Effects：May cause skin and eye irritation.
Chronic Effects：May cause injury to the liver and kidneys.
Specific substance(s)：
Acute toxicity：
Dimethyl sulfoxide　Dermal LD50 (Rat)：40g/kg
Dimethyl sulfoxide　Oral LD50 (Rat)：145g/kg
Listed carcinogen：None.

Ecological information

*Information given on this section applies to concentrated solutions of Dimethyl sulfoxide or the substance in its pure form.
Ecotoxicity：
The product components are not classified as environmentally hazardous.
However, this does not exclude the possibility that large or frequent spills can make harmful or damaging effects on the environment.
Mobility：The product is water soluble and may spread in water systems.
Persistence and degradability：No data available.
Bioaccumulative potential：No data available on bioaccumulation.

Disposal considerations

Other adverse effects：Not applicable.

Observe all national, state, and local regulations regarding disposal. Contact a licensed professional waste disposal service to dispose of this material.

Transport information

This product does not contain hazardous compounds in quantities that require special handling precautions.

Special precautions：None known.

Proper shipping name：Not dangerous goods according to transport regulations.

Transport regulations：No additional transport regulations are known to the supplier.

IMDG：Non-hazardous for sea freight.

ADR：Non-hazardous for road transport.

RID：Non-hazardous for rail transport.

ICAO/IATA：Non-hazardous for air transport.

Regulatory information

US

Labelling according to US Regulations: Caution：Avoid contact and inhalation.

US Regulatory information：

All intentional ingredients are listed on the TSCA Inventory.

All intentional ingredients are listed on the European EINECS Inventory.

Other information

Hazard Ratings

	Health Hazard	Fire Hazard	Instability	Special Hazard
NFPA	2	2	0	0

Hazard rating：0 – Minimal；1 – Slight；2 – Moderate；3 – Serious；4 - Severe

NFPA Label colored diamond code：

Blue – Health；Red – Flammability；Yellow – Instability；White - Special Hazards

	Health Hazard	Flammability	Physical Hazard	Personal Protection
HMIS	2	2	0	B

Hazard rating：0 – Minimal；1 – Slight；2 – Moderate；3 – Serious；4 - Severe

*- Chronic Health Effect Personal Protection codes：B - Safety Glasses, Gloves

HMIS Label colored bar code：Blue – Health；Red – Flammability；Orange - Physical Hazards；White – Special

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Bio-Helix Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

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