MIDORI Green Direct

Cat. No.	Product	Content
MG06	MIDORI Green Direct	1 mL
MG05		50 µL

1. Identity of the substance and the manufacturer

1.1. Name of the substances or preparations
MIDORI Green Diect

1.2. Recommended use of the chemical and restrictions on use
Laboratory research use only.

1.3. Name and address of the manufacturer
NIPPON Genetics EUROPE GmbH
Mariaweilerstraße 28 a
52349 Düren
Germany

1.4. Emergency telephone contact
+49 2421/554960

2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to the Regulation (EC) No. 1272/2008 (CLP)
Not classified as hazardous.

2.2. Labelling elements

2.2.1. Labelling according to the Regulation (EC) No. 1272/2008 (CLP)
Not labelled as hazardous.

2.2.2. Substance on the label
Obsolete.

2.2.3. Pictograms

2.2.4. Signal word
Caution.

2.2.5. H statements

H319	Causes serious exe irritation
H315	Causes skin irritation
H335	May cause respiratory irritation

2.2.6. P statements

P261	Avoid breathing mist / vapours / spray
P280	Wear protective gloves / eye protection

2.2. Other hazards
On PBT or vPvB properties of the product or its ingredients according to the criteria of REACH Annex XIII no information is available.
Physical-chemical hazardous effects are unknown. On complains and symptoms as well as to harmful effects no data are available.

3. Composition/information about the components

3.1. Substances
Not relevant.

3.2. Mixtures

3.2.1. Chemical characterization

Aqueous solution of inorganic and organic ingredients.

Chemical name	REACH Ref. No.	EC No.	Index No.	CAS No.	Content	Classification
Active ingredients of MIDORI Green Direct*	not available	not available	not available	not available	<1%	not classified as hazardous
Water	not available	231-791-2	not available	7732-18-5	20-50%	not classified as hazardous
Glycerol	not available	200-289-5	not available	56-81-5	10%	
DMSO	not available	200-664-3	not available	67-68-5	20-50%	H319, H315, H335

* No obligation for declaration according to the chemical legal regulations.

The wordings of the H statements are listed in section 16.

The mixture is not classified as hazardous. The available Safety Data Sheet is based on the information requirement according to REACH Article 32, and therefore voluntarily created according to the Annex II of the Regulation (EC) No. 1907/2006 (REACH) in the version of the regulation (EU) 2015/830.

4. First-aid measures

4.1. Description of necessary first-aid measures

4.1.1. General information

If complains persist consult a physician. Remove contaminated cloths and shoes, thoroughly clean before re-use. If complains and symptoms occur seek medical advice.

4.1.2. Inhalation
Remove the affected person to fresh air, bring to rest position, keep warm. If complains and symptoms occur seek medical advice.

4.1.3. Skin contact
At contact with the skin immediately wash with much water. If complains and symptoms occur seek medical advice.

4.1.4. Eye contact

Thoroughly wash the eyes on spread lids with flowing fresh water for 15 minutes, previously remove contact lenses if possible. Provide ophthalmological treatment.

4.1.5. Ingestion
Don‘t induce vomiting. Let rinse the mouth, let spit of the liquid and let drink copious amounts of water. If complains and symptoms occur seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed
Not relevant.

4.3. Indication of any immediate medical attention and special treatment needed
Decontamination, symptomatic treatment. No specific antidote known.

5. In case of fire

5.1. Suitable extinguishing agents

The product is not combustible, adapt the measures to the environment: water spray, carbon dioxide, extinguishing foam and dry extinguishing agent.

5.2. Not suitable extinguishing agents
Water jet.

5.3. Specific hazards from chemical compounds

In the fire case toxic gases – carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen iodide – may be released.

5.4. Protective equipment and precautions for fire fighters

Use a self-contained breathing apparatus (SCBA) at poor ventilation and in closed rooms. Wear protection cloth.
Further information: Adapt the extinguishing media and fire-fighting measures to the environment.

6. In case of spillage

6.1. Personal precautions, protective equipment and emergency procedures
- Mind the protection measures (section 8).
- Avoid the contact with skin, eyes and cloth, wear suitable protection equipment.
- Ensure adequate ventilation.
- Avoid aerosol formation.

6.2. Environmental precautions
- Do not allow to enter sewers / surface waters / ground water.
- Remove fire residues and contaminated aqueous wastes in suitable containers and dispose of them in a controlled manner.

6.3. Containment and cleanup
- Take up with liquid-binding agents, e.g. universal binder, treat material as described in section 13 „Disposal considerations“.
- Clean contaminated surfaces with water.

6.4. Reference to other sections
Refer to section 8 – personal protection and section 13 – information on disposal.

7. Handling and storage

7.1. Safe handling

7.1.1. Information on safe use

- Avoid inhalation of aerosol, contact with eyes, skin and cloth, as well as longer or repeated exposure.
- Provide sufficient ventilation of the working room (local exhaust ventilation if needful).
- If workplace exposure limits are exceeded, wear appropriate respiratory protection.

7.1.2. Information on fire and explosion protection

No special measures needful.

7.1.3. Handling rules

- On workplaces only keep available amounts necessary for work progress.
- Don't leave receptacles stand open.
- Avoid spilling, preferable handle with non-breakable receptacles or use suitable protection containers on transportation of breakable receptacles.

7.2. Safe storage

7.2.1. Technical measures and storage conditions

- Keep opened container tightly closed again and stored upright to prevent leakage
- Always keep in containers of the same material as the original.
- Storage temperature 4 ° C recommended.
- Keep away from sunlight.

7.2.2. Packing materials

- Packing materials must be tested for durability before use.

7.2.3. Requirements for storage rooms and containers

- Storage in passages, passages, stairs, public areas, roofs, roofs and workrooms is not permitted.
- Do not use food containers because of the risk of confusion.
- Label containers clearly and permanently.
- If possible, keep in the original container, keep container tightly closed.

7.2.4. Information on cumulative storage

Storage class: non-combustible liquids.
Nothing but substances of similar properties should be cumulatively stored. Cumulative storage with substances as follows is prohibited:

- Pharmaceuticals, food and feed, including additives.
- Infectious, radioactive and explosive substances.
- Organic peroxides and very reactive oxidizing substances.

7.2.5. Further information to the storage conditions

None.

7.3. Specific end uses

None.

8. Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limits

No information available.

8.1.2. Biological exposure limits

No information available.

8.1.3. DNEL and PNEC values

No information available.

Reference: For the assessment of the own risk assessment measures (**RMM)** with the charge-free tool **ECETOC TRAM** or with another method possibly a scaling for the proof of the safe use should be performed. Existing DNEL/PNEC values also may be extrapolated based at the concentrations from section 3.
If an exposure scenario should be completely applicable, this shall be documented.

Remark: With data given by an extended SDB, this is to be done within one year after receipt of the eSDB.

8.2. Exposure controls

8.2.1. Personal protection

8.2.1.1. Respiratory protection

- No respiratory protection is necessary when working with the small quantities intended for the product.
- In case of exceptional operating conditions, working with larger quantities and with the risk of aerosol formation use suitable respiratory protection, e.g. half-masks according to EN 140 with filters according to EN 143-P1.
- Observe wearing time limit.

8.2.1.2. Hand protection

- At the risk of skin contact with the product, ensure adequate protection by wearing suitable protective gloves, e.g. according to EN 374.
- Before use, test protective gloves for suitability under the specific working conditions (e.g., mechanical resistance, product compatibility and antistatic properties).
- Observe the instruction and information on the use, storage, maintenance and replacement of protective gloves.
- Damaged and worn protective gloves should be replaced immediately.
- After glove penetration tests with the product over 48 hours, the latex gloves, which are usually worn in research laboratories, are not penetrated even at five-fold concentration.

8.2.1.3. Eye protection

- Eye protection goggles with side protection (EN 166).

8.2.1.4. Skin protection

- Use clothing usal in the chemical industry.
- Skin protection agents are not as effective as protective gloves, so they should be preferred as much as possible.

- If no protective gloves can be worn, apply water-insoluble skin protection preparations to the clean skin before starting work and after every break.
- Before breaks and at the end of work, skin cleansing with soap and water is required.
- After cleansing, use a greasy skin care product.

8.2.1.5. Body protection

- Special body protection generally not required, normal work clothes adequate.

8.2.1.6. General protection and hygiene measure

- Do not eat, drink or smoke during working hours. Keep away from food and drink.
- Avoid contact with eyes and skin.
- Remove contaminated and soaked clothing immediately.
- Wash hands before breaks and after work.

8.2.2. Limitation of the environmental exposure

Avoid leaks and spills.

8.2.3. Limitation of the consumer's exposure

Avoid inhalation of vapors, mists or gases, remove sources of ignition.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1.1. Appearance

Physical status: liquid
Color: green
Odour: odourless

9.1.2. Fundamental data relevant for security

Parameter	Value	Unit	Method	Remark
pH vaule at 20°C	4,0	----	EPA 9040C	Safety Test Report
Melting point/range	n.a.	°C	----	
Boiling point/range	ca. 100	°C	----	Aqueous solution

Flash point	>150	°C	ASTM D-93	Safety Test Report
Self-ignition temperature	n.d.			
Vapor pressure at 25 C°	n.d.	hPa	----	
Density	ca. 1,0	g/cm³	----	Aqueous solution
Bulk density	n.a.	kg/m³	----	----
Water solubility at 20 °C	----	mg/L	----	----
Granulometry	n.a.	µm	----	----
Partitition coeffizient: noctanol/ water log Kow	n.d.	----	----	----
Dynamic viscosity	n.d.	mPa*s	----	----
Lower explosions limit	n.d.	Vol.%	----	----
Upper explosions limit	n.d.	Vol.%	----	----

n.a.: not applicable
n.d.: not determined

9.2. Other information
Not relevant.

10. Stability and reactivity

10.1. Reactivity
Not reactive under the intended use and storage conditions.

10.2. Chemical stability
Chemically stable under the intended use and storage conditions.

10.3. Possibility of hazardous reactions
Unknown under the intended use and storage conditions.

10.4. Conditions/materials to avoid
High temperature.

10.5. Incompatible materials
Strong acids and bases, oxidizing and reducing agents.

10.6. Harmful material produce by degradation
At high temperature carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen iodide.

11. Toxicological information

11.1. Information on toxicological effects

11.1.1. Toxicocinetics, metabolism and distribution
No data available.

11.1.2. Acute toxicity

Parameter	Value	Species / cell culture	Method	Remark
LD50 subcutaneous	250 mg/kg	Mouse	Unknown	Pure ingredient

11.1.3. Corrosive and irritation effects
No data available.

11.1.4. Sensitizing effects
No data available.

11.1.5. Subacute and chronic toxicity
No data available.

11.1.6. Carcinogenicity, mutagenicity and reproduction toxicity
Mutagenicity:

Parameter	Value	Species / cell culture	Method	Remark
In vitro bacterial back-mutation test	Negative	*Salmonella typhimurium* TA98 / TA1537	OECD 471 / Ames test	With / without S9 activation
In vivo micro nucleus test	Negative	Swiss-Webster mouse bone marrow erythrocytes	US-EPA Guidelines	Pure ingredient

On the carcinogenicity and reproduction toxicity of the product and its ingredients no data are available.

11.1.7. Experience from practise
No data available.

11.1.8. General remarks
When handled appropriate and used as intended, the product does not cause harmful effects according to our experience and current information.

12. Ecological information

12.1. Ecotoxicity

Parameter	Value	Species	Method	Remark
LC_{50} *fish 96 h*	>750 mg/L	*Pimephales promelas*	OECD 203	Safety Test Report

12.2. Persistence and degradability

Biological degradation	No data available
Abiotic degradation	No data available

12.3. Bio-accumulation potential
No data available.

12.4. Mobility in soil

Absorption/desorption	No data available

12.5. Volatibility
No data available.

12.6. Results of the PBT and vPvB assessment
On PBT or vPvB properties of the product or its ingredients according to the criteria of REACH

Annex XIII no information is available.

12.7. Other adverse effects

Ozone depletion potential and global green-house effects are not known.

General remarks: When handled appropriate and used as intended, the product does not cause adverse effects according to our experience and current information, but should not be discharged into large quantities into an outflow or water body.

13. Disposal considerations

13.1. Waste treatment methods

13.1.1. Product

The allocation of a waste code number according to the European waste catalog should be done in consultation with the regional waste disposal company.
Recommendation:

AVV waste code number:	16 05 06	Other waste containing organic chemicals, e.g. lab chemicals not otherwise specified

13.1.2. Packaging

Residues in packages should be removed, preferably by rinsing with water, and after complete emptying in accordance with the regulations for waste disposal. Packaging which is not completely emptied must be disposed of in the form as determined by the regional waste disposal company.
Recommendation:

AVV waste code number:	15 01 06	Mixed packaging

14. Transport information

UN number	Not relevant
UN proper shipping name	Not relevant
Transport hazard class(es)	Not relevant
Packing group	Not relevant

Environmental hazards	Not relevant
Special precautions for user	Not relevant
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not relevant

Remarks: This product is not classified as dangerous good according to ADR / RID / ADN / IDMG-Code and ICAO / IATA.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU Regulations

15.1.1.1. Classification and labelling acc. to Regulation (EC) No. 1272/2008 (CLP)

The product is not subject to classification and labelling. Refer to section 2.

15.1.1.2. Authorizations and/or use restrictions

Not applicable.

15.1.1.3. Information on Directive 1999/13/EG on VOC emission limitations

0% VOC in the product.

15.1.2. National regulations (United Kingdom)

15.1.2.1. Classification and labelling

The product is not due to labelling according to the UK regulations.

15.1.2.2. Other U.K. regulations and guidance

Health and Safety at Work Act 1974.
The Management of Health and Safety at Work regulations 1992.
L5 Control of substances hazardous to Health. The Control of Substances Hazardous to Health Regulations 2002. Approved codes of practice and guidance.
Guidance Note EH40 – Occupational Exposure Limits.
BS EN ISO 10882-1:2001 - health and safety in welding and allied processes - sampling of air-borne particles and gases in operator's breathing zone – part 1: sampling of airborne particles.

15.2. Chemical safety assessment

Chemical safety assessments (CSA) according to the Article 14 Paragraph 1 of the Regulation (EC) No 1907/2006 (REACH) are not available.

16. Other information

16.1. Wordings of the H-statements from the sections 2 and 3

Not available.

16.2. Training advice

Instruction on hazardous substances is mandatory.

16.3. Abbreviation/explanation

SU3	Descriptor for industrial users from ECHA Guide Chemical Safety Information Requirements R.12 https://echa.europa.eu/documents/10162/13632/information_requirements_r12_de.pdf
PNEC	Predicted No Effect Concentration
DNEL	Derived No Effect Level
ECETOC-TRAM	Tool free of charge for proving the safe use of registered substances. http://www.ecetoc.org/tra

16.4. Recommended use restriction

Not recommended for consumer's use.

16.5. Remarks

This information is based on our present knowledge. Its objective is to describe the product from the point of view of safety, and no warranty is made other than its characteristics. This information does not absolve the user in any circumstances from observing other Legislative, Regulatory and Administrative requirements applying to the product, and to safety, hygiene and the well-being of the people in the workplace.

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