Midori Green Advance TAE Agarose Tablets

Safety Data Sheet according to Annex II of the Regulation (EC) No. 1907/2006 (REACH), amended by the Regulation (EU) 2015/830

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Name:	Midori Green Advance TAE Agarose Tablets
Cat. No.:	AG10
EC Substance name:	not available
CAS Number:	not available
EC Number:	not available
REACH Reference Number:	A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses:	For laboratory and manufacturing use only.
Uses advised against:	Unknown.

1.3 Details of the supplier of the safety data sheet

Supplier:	NIPPON Genetics EUROPE GmbH Mariaweilerstraße 28-30 D- 52349 Düren, Germany Phone.: +49 (0) 2421 / 554960 Fax: +49 (0) 2421 / 5549611 E-Mail: info@nippongenetics.de Internet: www.nippongenetics.eu
Information on further details at:	Technical Support Phone: +49 (0) 2421 / 554960 Fax: +49 (0) 2421 / 5549611 E-Mail: sdb@nippongenetics.de

1.4 Emergency telephone no:

Emergency information:	Phone: +49 (0) 2421 / 554960 Within the business hours: Monday to Friday, 8 a.m. to 5 p.m.
Poison Center in Bonn (Germany)	0228/19240

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to the Regulation (EC) No. 1272/2008 (CLP);

H315	Skin irritation (Category 2)
H319	Serious eye irritation (Category 2)

For the full text of the H statements mentioned in this section, see section 15

Classification according to EU directives 67/548/EEC or 1999/45/EC;

Xi	Irritant	R36/38

2.2 Labelling elements

Labelling according to the Regulation (EC) No. 1272/2008 (CLP);

Substance on the label:

Pictograms:



Signal word:		**WARNING**
H statements:	H302	Harmful if swallowed.
	H315	Causes skin irritation**.**
	H319	Causes serious eye irritation.
	H335	May cause respiratory irritation
P statements:	P201	Obtain special instructions before use.
	P280	Wear protective gloves/protective clothing/eye protection.
	P301+P312	IF SWALLOWED: call poison center or doctor if you feel unwell
	P302 + P352	IF ON SKIN: Wash with plenty of water.
	P305+P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P313	If exposed or concerned. Get medical advice / attention.

Supplemental Hazard Statements: None
Restricted to professional users.

According to European Directive 67/548/EEC as amended.
Hazard symbol(s) Xi irritant



R-phrases	
R22	Harmful if swallowed
R36/38	Irritation to eyes, irritating to skin
S-Phrases	
S53	Avoid exposure – obtain special instructions before use
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 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.

2.4 Additional hazards for humans and the environment:

2.4.1 Possible hazardous physicochemical effects:	Unknown
2.4.2 Possible adverse effects on humans and possible symptoms:	No data available
2.4.3 Possible harmful effects:	No data available

3. Composition / information on ingredients:

3.1 Substances: **Powder solution with inorganic components**
Product name: **Midori Green Advance TAE Agarose Tables**

3.2 Components:

Chemical characterization:

Powder solution with inorganic and organic components.

Chemical name	EC No.	CAS No.	Content	Classification according to 67/548/EEC and 1999/45/EC	Classification according to regulation (EC)NO 1272/2008
Midori Green Advance DNA Stain*	----	----	< 1%	----	----
Agarose	232-731-8	9012-36-6	65%	----	----
Tris Acetat EDTA (TAE) buffer	----	----	35%	----	----
Tris (hydroxymethyl) aminomethane	201-064-4	77-86-1	75-80% of TAE buffer	Xi, R36/38	Skin Irrit. 2; H315 Eye Irrit. 2; H319
$Na_2EDTA \times 2H_2O$	205-358-1	6381-92-6	5-6% of TAE buffer	Xn, R22/38	Acute Tox 4; H302 Eye Irrit. 2; H319
Acetic acid	200-580-7	64-19-7	15-20% of TAE buffer	Xi, R36/38	Skin Irrit. 2; H315 Eye Irrit. 2, H319

* No components need to be disclosed according to the applicable regulations.

The wordings of the H statements are listed in section 15.

4. First aid measures

4.1 Description of the 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 Eyes 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:
No data available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:



This product is not flammable. Use extinguishing agent suitable for type of surrounding fire: water spray, dry chemical or carbon dioxide, fire extinguishing foam, extinguishing powder.

Not suitable extinguishing media for safety reasons:
No data available

5.2 Special hazards arising from the substance or mixture:



Thermal decomposition can lead to release of irritating gases and vapors.
Hazardous Combustion Products: Carbon oxides.

5.3 Advice for fire fighters:



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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Avoid contact with skin, eyes and clothing, wear appropriate protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

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 Methods and material for containment and cleaning up:
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 Precautions for 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:
See section 5.

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 Conditions for safe storage considering incompatibilities:

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. 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, stairs, public areas, 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 Further information to the storage conditions:

Recommended storage temperature 4-30°C. Protect from light.

7.3 Specific end uses:

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls / personal protection

8.1 Control parameters:

Components with workplace control parameters:

Contains no relevant quantities of substances with occupational exposure limit values that have to be monitored at the workplace according to TRGS 900.

8.2 Exposure controls:

Appropriate engineering controls:

Handle in accordance with Good Laboratory Practice. Wash hands before breaks and at the end of workday.

8.2.1 Personal protection:

Respiratory protection:



In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards. Half masks according to EN 140 or full masks according to EN 136, with filters according to EN 143-P1.

Hand protection:



Handle with suitable protective gloves. Gloves must be inspected prior to use. Damaged and worn protective gloves should be replaced immediately. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and Good Laboratory Practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Completely unsuitable are gloves made of fabric or leather. The following gloves are suitable:

For full contact:

Material:	Minimum layer thickness	Breakthrough time:
Nitrile rubber	0.35 mm	≥ 480 min
Latex	0.35 mm	≥ 480 min

For splash contact:

Material:	Minimum layer thickness	Breakthrough time:
Natural rubber	0.5 mm	≥ 120 min
Latex	0.5 mm	≥ 120 min
Polyvinyl chloride	0.5 mm	≥ 120 min
Nitrile rubber	0.2 mm	≥ 30 min

Eye protection:



Eye protection goggles with side protection (EN 166).

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.

Body protection:



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

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

a) Appearance Form:	White, powder in tablet form.
b) Odour:	No data available
c) Odour Threshold:	No data available
d) pH:	Max. pH 8.5 at 25°C
e) Melting point/freezing point:	No data available
f) Initial boiling point and boiling range:	No data available
g) Flash point:	No data available
h) Evaporation rate:	No data available
i) Flammability (solid, gas):	No data available
j) Upper/lower flammability or explosive limits:	No data available
k) Vapour pressure:	No data available
l) Vapour density:	No data available
m) Relative density:	No data available
n) Water solubility:	Soluble in water
o) Partition coefficient:	No data available
p) Auto-ignition temperature:	No data available
q) Decomposition temperature:	No data available
r) Viscosity:	No data available
s) Explosive properties:	No data available
t) Oxidizing properties:	No data available

9.2 Other safety information: No data available

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 to avoid:
High pressure and temperatures. Stable under regular laboratory conditions. See section 7.

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

10.6 Hazardous decomposition products
No data available for other decomposition products. In the event of fire: see section 5.

11. Toxicological information

11.1 Information on toxicological effects:

11.1.1 Toxicocinetics, metabolism and distribution:
No data available.

11.1.2 Acute toxicity:

Component	Parameter	Value	Species
Midori Green Advance DNA stain	LD50 oral	1000-10000 mg/kg	Kunming mice

Other components: No data available.

11.1.3 Corrosive and irritation effects:
Skin corrosion/irritation: Irritant effect
Serious eye damage/eye irritation: Irritant effect

11.1.4 Sensitizing effects:
No data available.

11.1.5 Aspiration hazard:
No data available.

11.1.6 Carcinogenicity, mutagenicity and reproduction toxicity:

Component	Parameter	Value	Cell culture/ Species	Method	Remarks
Midori Green Advance DNA stain	*In vitro* bacterial mutation test	0,5-5 mg/plate	Salmonella typhimurium TA97/98/100/102	AMES-test	Non-mutagenic
Midori Green Advance DNA stain	*In vivo* micronucleus test	1000-5000 mg/kg	Kunming mice	The mouse bone marrow micronucleus test	Negative

Midori Green Advance DNA stain	*In vitro* mammalian chromosomal aberration test	31,2-5000 µg/ml	Chinese hamster ovary line.	*in vitro* mammalian cell chromosome aberration detection system	Negative

Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No toxicological data are available on the components of the product.

Additional toxicological information: No data 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 Toxicity: No data available.

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 Volatility: No data available.

12.6 Results of the PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher**.**

12.7 Other adverse effects:

Harmful to aquatic life.

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.

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.

14. Transport information

14.1 UN number: Not applicable

14.2 UN proper shipping name: Not applicable

In accordance with GGVSEB, ADR / RID, IMDG / GGVSee, ICAO / IATA-DGR

ADR/RID, GGVSEB	Not dangerous good during shipping
IMDG / GGVSee	Not dangerous good during shipping
ICAO / IATA-DGR	Not dangerous good during shipping

14.3 Transport hazard class(es): None **Hazard label:** None

14.4 Packaging group: None **Hazard number:** None

14.5 Environmental hazards: None

14.6 Special precautions for user: No data available

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: not relevant

15. Regulatory information

15.1 EU regulations:

15.1.1 Chemical safety assessment according to Regulation (EC) No 1907/2006:
Substance safety assessments (CSA) according to Article 14 (1) of Regulation (EC) No 1907/2006 (REACH) for the components of the product are neither banned nor restricted

15.1.2 Classification and labeling according to directives 67/548 / EEC (DSD) and 1999/45 / EC (DPD):
Not a hazardous substance or mixture, see section 2

15.1.3 Classification and labeling according to Regulation (EC) No 1272/2008 (CLP):
Hazardous substance or mixture, see section 2

15.1.4 Hazardous components which must be listed on the label.

15.1.5 Pictograms:



Signal word: Warning to Regulation (EC) No. 1272/2008
H-Statements: Hazardous substance or mixture according to Regulation (EC) No. 1272/2008
Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed
Eye Irrit.	Eye irritation
H319	Causes serious eye irritation
Skin Irrit.	Skin irritation
H315	Causes skin irritation
H335	May cause respiratory irritation

Full text of R-phrases referred to under sections 2 and 3

T	Toxic
	Acute Toxicity (category 4)
R22	Harmful if swallowed
R36/38	Irritating to eyes and skin.
Xi	Irritant
Xn	Harmful

15.1.6 Special labelling of certain preparations: Neither banned nor restricted:

15.1.7 Approvals and / or restrictions of use: Neither banned nor restricted.

15.1.8 Information on Directive 1999/13 / EC (VOC Directive) on the limitation of VOC emissions: Neither banned nor restricted.

15.2 National regulations (Germany):

15.2.1 Classification and labeling according to Hazardous Substances Ordinance (GefStoffV): Not a hazardous substance or mixture. See section 2.

15.2.2 Employment restrictions:
Observe the Ordinance on Hazardous Substances (GefStoffV), the Youth Protection Act (JArbSchG) or the Ordinance on the Protection against Mothers (MuSchV).

15.2.3 Ordinance on Hazardous Substances (12. BlmSchV): Neither banned nor restricted.

15.2.4 Classification according to the regulation of water pollutants (VwVwS): WGK1 slightly flammable

15.2.5 Technical instructions for Air (TA Luft): Neither banned nor restricted

15.2.6 Other regulations, restrictions and prohibitions: For this product, a chemical safety assessment was not carried out.

16. Other information

16.1 Training advice:
Accordance with applicable laws and Good Laboratory Practices.

16.2 Recommended use restriction:
Not recommended for consumer's use. For research use only.

16.3 Further information and contact points for technical information:
Email: support@nippongenetics.de

16.4 Data sources of the Safety Data Sheet creation:
European Chemical Substances Information System (ESIS),
Internet: http://ecb.jrc.ec.europa.eu/esis.
Hazardous substance information system of the trade associations (GESTIS),
Internet: http://www.hvbg.de/d/bia/gestis/stoffdb/index.html.
Hazardous Substances Database (HSDB) - U.S. National Library of Medicine,
Internet: http://toxnet.nlm.nih.gov
Hommel interactive 4.0 - Handbook of Dangerous Goods,
Internet: http://www.springer.com/dal/home/chemistry.
CRC Handbook of Chemistry and Physics, 88th Edition, 2007-2008,
Internet: http://www.hbcpnetbase.com..

16.5 Amended information and reason for amendment:

Prior version:	Version number	----	Date:	----
Actual version:	Versionsnummer	1.3	Datum:	01-04-2024
Kind of amendent:	New address			
Reason for amendment:	Company movement.			

16.6 Remarks:

This information is only intended to describe the safety requirements of the product and is based on the present state of our knowledge. They do not constitute a guarantee for the characteristics of the product described in the sense of the statutory warranty regulations. Please refer to the respective product data sheets for the delivery properties. If the product mentioned in this Material Safety Data Sheet is blended, mixed or processed with other materials, the data in this Material Safety Data Sheet may not be transferred to the new material, unless otherwise specified.

End of Safety Data Sheet