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## Midori Green Agarose Tablets

Safety Data Sheet

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

#### 1.1 Product identifier

Name: Midori Green Agarose Tablets  
Cat. No.: AG09  
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  
Binsfelder Straße 77  
D- 52351 Düren, Germany  
Phone.: +49 (0) 2421 / 554960  
Fax: +49 (0) 2421 / 5549611  
E-Mail: [info@nippongenetics.de](mailto:info@nippongenetics.de)  
Internet: [www.nippongenetics.eu](http://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](mailto: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.

### 2. Hazards identification

#### 2.1 Classification of the substance or mixture according to regulation (EC) No 1272/2008

Signal Word:

DANGER

Pictogram:



Health hazards:

Skin irritation Category 2  
Eye irritation Category 2  
Reproductive toxicity Category 1B  
Specific target organ toxicity – single exposure Category 3  
Respiratory system

Hazard Statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H360FD May damage fertility. May damage the unborn child.

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#### Precautionary Statements

P201	Obtain special instructions before use
P261	Avoid breathing dust/fume/gas/mist /spray.
P280	Wear eye protection / face protection
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	Dispose of contents/container in accordance with local/regional/national /international regulations.
P332 + P313	IF exposed or concerned: Get medical advice/ attention.

#### Supplemental Hazard Statements

None.

#### Restricted to professional users.

#### 2.2 Other hazards

No other hazards known.

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### 2.3 Additional hazards for humans and the environment

2.3.1 Possible hazardous physicochemical effects: Unknown

2.3.2 Possible adverse effects on humans and possible symptoms: No data available

2.3.3 Possible harmful effects: No data available

### 3. Composition / information on ingredients:

#### 3.1 Chemical characterization:

Powder solution with inorganic and organic components.

#### 3.2 Components:

Name	CAS No.	EC No.	Proportion %	Classification according to regulation (EC)No1278/2008
Midori Green Advance DNA Stain *	-	-	<1%	-
Agarose	9012-36-6	232-731-8	50%	-
Tris-Borate EDTA (TBE) buffer **	-	-	50%	-
Tris (hydroxymethyl) aminomethane	77-86-1	201-064-4	25-35% of TBE buffer	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335
Ethylenediaminetetraacetic acid (EDTA)	60-00-4	200-449-4	1,5-2,5% of TBE buffer	H319
Boric acid	10043-35-3	233-139-2	15-20% of TBE buffer	Repr. 1B; H360FD

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

\*\* Hazardous ingredients according to Regulation (EC) No 1272/2008 Component Classification Concentration Boric acid Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. (REACH) 1907/2006

### 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

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complains and symptoms occur seek medical advice.


#### 4.1.2 Inhalation:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### 4.1.3 Skin contact:

In case of skin contact, immediately wash off with soap and rinse with plenty of water. Consult a physician.

#### 4.1.4 Eye contact:

 Eye contact: Remove contact lenses. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### 4.1.5 Ingestion:


Never give anything to an unconscious person. Do not induce vomiting. Rinse the mouth, spit out the fluid and drink plenty of water. Call a physician immediately and show him the safety data sheet.

#### 4.1.6 Notes to physician:

Decontamination, symptomatic treatment. No specific antidote known.

## 5. Firefighting measures


### 5.1 Suitable extinguishing media

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

### 5.2 Extinguishing media which must not be used for safety reasons:

Not known.

### 5.3 Special hazards caused by the product, combustion products or resulting gases:

 In the event of fire, toxic and corrosive gases - carbon monoxide, carbon dioxide, and sulphur oxides - can be released.

### 5.4 Special protective equipment for fire-fighting:



Wear protective clothing. Wear self-contained breathing apparatus for firefighting if necessary.

### 5.5 Additional information:

No data available.

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures:

Avoid the contact with skin, eyes and cloth, wear suitable protection equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### 6.2 Environmental precautions:

Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

### 6.3 Methods and material for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4

For disposal see section 13.

## 7. Handling and storage

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### 7.1 Handling:

#### 7.1.1 Information for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust might formed. For precautions see section 2.2.

#### 7.1.2 Information on fire and explosion protection:

See section 5.

#### 7.1.3 Handling rules:

No special handling measures required

### 7.2 Storage:

#### 7.2.1 Technical measures and storage conditions:

Always keep in containers of the same material as the original.

#### 7.2.2 Packaging materials:

Packing materials must be tested for durability before use.

#### 7.2.3 Requirements for storage rooms and containers:

Keep container tightly closed in a dry and well-ventilated place. If possible, keep in the original container. Do not use food containers because of the risk of confusion. Containers which are opened must be carefully resealed.

#### 7.2.4 Further information on storage conditions:

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

### 7.3 Specific end use(s):

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.

### 8.3 Personal protective equipment:



#### Skin 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

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Latex	0.35 mm	≥ 480 min
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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:**

Safety glasses with side-shields conforming to EN166 U).

**Body protection:**

Suitable protective clothing. Special body protection generally not required.

**General protective and hygienic measures**

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.

**8.4 Limitation of the environmental exposure:**

Prevent further leakage or spillage if safe to do so.

**8.5 Limitation of end-user exposure:**

Avoid formation of dust and aerosols. Avoid breathing vapors, mist or gas. Remove all 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:	No data available
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

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### 10. Stability and reactivity

#### 10.1 Chemical stability:

Stable under the intended use and storage conditions.

#### 10.2 Possibility of hazardous reactions:

No dangerous reaction known under conditions of normal use.

#### 10.3 Hazardous decomposition:

No data available.

#### 10.4 Conditions to avoid

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

#### 10.5 Materials to avoid

Strong acids, oxidation and reducing agents.

#### 10.6 Incompatible materials

Strong oxidizing agents

#### 10.7 Hazardous decomposition products

Other decomposition products: No data available.

### 11. Toxicological information

#### 11.1 Information on toxicological effects:

##### 11.1.1 The acute toxicity test

Component	Parameter	Value	Species
Midori Green Advance DNA stain	LD50 oral	1000-10000 mg/kg	Kunming mice
Tris (hydroxymethyl)aminomethane:	LD50 oral	5900 mg/kg	Rat
Boric acid	LD50 oral	2000 mg/kg	Rat
Boric acid	LD50 dermal	0.16 mg/L	Rabbit
Boric acid	LD50 inhalation	0.16 mg/L	Rat

##### 11.1.2 Corrosive and irritant effects

Skin corrosion/irritation Irritant effect

Serious eye damage/eye irritation Irritant effect

After inhalation Slight irritations

##### 11.1.3 Respiratory or skin sensitization

11.1.4 Aspiration hazard No data available

11.1.5 Carcinogenicity, mutagenicity and toxicity to reproduction mutagenicity:

Component	Parameter	Value	Cell culture/ Species	Method	Remarks
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Midori Green Advance DNA stain	<i>In vitro</i> bacterial mutation test	0,5-5 mg/plate	Salmonella typhimurium TA97/98/100/102	AMES-test	Non-mutagenic
Midori Green Advance DNA stain	<i>In vivo</i> micronucleus test	1000-5000 mg/kg	Kunming mice	The mouse bone marrow micronucleus test	Negative
Midori Green Advance DNA stain	<i>In vitro</i> mammalian chromosomal aberration test	31,2-5000 µg/ml	Chinese hamster ovary line.	<i>in vitro</i> 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

### 11.1.6 Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Product is suspected to cause damage to fertility. · CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Repr. 1A

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence (Boric acid)

**11.2 Practical experience** No data available

### 11.3 General remarks:

When used and handled according to instructions, 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:** No data available.

No data on biological and abiotic degradation are available for the components of the product

**12.3 Mobility in soil:** No data available.

**12.4 Bioaccumulation:** No data available.

### 12.5 Results of 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.

**12.6 Other adverse effects** Harmful to aquatic life

### 12.7 General remarks:

When used and handled according to instructions, the product does not cause harmful effects according to our

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experience and current information.

### 13. Disposal considerations

#### 13.1 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.

#### 13.2 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.

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### 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)

ADR/RID, IMDG, IATA None

#### 14.4 Packaging group

ADR/RID, IMDG, IATA None

#### 14.5 Environmental hazards

ADR/RID, IMDG, IATA None

#### 14.6 Special precautions for user

No data available

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### 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.

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### 15.1.5 Pictograms:



Signal word: Danger 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.

Eye Irrit.	Eye irritation
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360FD	May damage fertility. May damage the unborn child.
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure Full text of R-phrases referred to under sections 2 and 3
T	Toxic
R36/37/38	Irritating to eyes, respiratory system and skin.
R60	May impair fertility.
R61	May cause harm to the unborn child.
Xi	Irritant
Repr.Cat.2	Toxic to Reproduction Category 2

15.1.6 Special labeling 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. BImSchV):  
Neither banned nor restricted.

15.2.4 Classification according to the regulation of water pollutants (VwVwS):  
WGK 1 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.

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## 16. Other information

**Disclaimer:** For research use only.

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