

Trade name: DNA-12000 Marker solution**Product no.:** 292-90139-02**Current version :** 3.0.0, issued: 18.08.2022**Replaced version:** 2.0.0, issued: 28.09.2018**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****DNA-12000 Marker solution****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

General chemical processes

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**

Shimadzu Europa GmbH

Albert-Hahn-Str. 6-10

47269 Duisburg

Telephone no. +49 (0)203 - 7687-0

Fax no. +49 (0)203 - 711045

Information provided by / telephone

Tel.: +49 (0)203 - 7687-0

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Repr. 1B; H360

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS08

Signal word

Danger

Hazardous component(s) to be indicated on label:

boric acid

Hazard statement(s)

H360 May damage fertility or the unborn child

Precautionary statement(s)

P201 Obtain special instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Supplemental label elements

"Restricted to professional users"

2.3 Other hazards

No data available.

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Not applicable. The product is not a substance.

3.2 Mixtures**Chemical characterization**

Buffer solution including boric acid and EDTA.

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	boric acid			
	10043-35-3 233-139-2 005-007-00-2 -	Repr. 1B; H360FD	< 2.50	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion

Seek medical advice immediately. Drink plenty of water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Water spray jet; Carbon dioxide; Extinguishing powder; Foam

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

No data available.

5.3 Advice for firefighters

No data available.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g., sand, sawdust, general-purpose binder). When collected, handle material as described under the section heading "Disposal considerations".

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No data available.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****General protective and hygiene measures**

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work.
 Provide eye wash fountain in work area.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container dry in a cool, well-ventilated place. Protect from sun.

Recommended storage temperature

Value	-20	°C
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Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

No parameters available for monitoring.

8.2 Exposure controls**Appropriate engineering controls**

No data available.

Personal protective equipment**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Check in any case suitability of protective glove for the specific workplace conditions (e.g. mechanical resistance, product compatibility, antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

State of aggregation		
liquid		
Form		
liquid		
Colour		
colourless, clear		
Odour		
odourless		
pH value		
Value	8.1	
Reference temperature	20	°C
Boiling point / boiling range		
Value	appr. 100	°C
Melting point/freezing point		
No data available		

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Decomposition temperature		
No data available		
Flash point		
Not applicable		
Ignition temperature		
No data available		
Flammability		
No data available		
Lower explosion limit		
No data available		
Upper explosion limit		
No data available		
Vapour pressure		
No data available		
Relative vapour density		
No data available		
Relative density		
No data available		
Density		
Value	1.00	g/cm³
Reference temperature	25	°C
Solubility in water		
Comments	soluble	
Solubility		
No data available		
Partition coefficient n-octanol/water (log value)		
No data available		
Kinematic viscosity		
No data available		
Particle characteristics		
No data available		

9.2 Other information

Other information	
No data available.	

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available.

10.2 Chemical stability

Stable if stored and handled properly.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute oral toxicity	
No	Product Name
1	DNA-12000 Marker solution

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LD50	2.660	-	5.140	mg/kg
Species	rat			
Reference substance	boric acid			
Acute dermal toxicity				
No data available				
Acute inhalational toxicity				
No data available				
Skin corrosion/irritation				
No	Product Name			
1	DNA-12000 Marker solution			
Reference substance	boric acid			
Evaluation	irritant			
Serious eye damage/irritation				
No	Product Name			
1	DNA-12000 Marker solution			
Reference substance	boric acid			
Evaluation	irritant			
Respiratory or skin sensitisation				
No data available				
Germ cell mutagenicity				
No data available				
Reproduction toxicity				
No data available				
Carcinogenicity				
No data available				
STOT - single exposure				
No data available				
STOT - repeated exposure				
No data available				
Aspiration hazard				
No data available				

11.2 Information on other hazards**Endocrine disrupting properties**

No data available.

Other information

Exercise customary precautions when handling chemicals.

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish (acute)				
No data available				
Toxicity to fish (chronic)				
No data available				
Toxicity to Daphnia (acute)				
No data available				
Toxicity to Daphnia (chronic)				
No data available				
Toxicity to algae (acute)				
No data available				
Toxicity to algae (chronic)				
No data available				
Bacteria toxicity				
No data available				

12.2 Persistence and degradability

No data available.

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No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information**Other information**

Ecological data are not available.

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

The product contains following substance(s) meeting the criteria in Article 57 in association with Article 59 of the REACH regulation ((EC) 1907/2006) that are placed on the list of candidates considered for inclusion in annex XIV (substances subject to Authorisation).

No	Substance name	CAS no.	EC no.
1	boric acid	10043-35-3	233-139-2

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No 3

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The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.				
No	Substance name	CAS no.	EC no.	No
1	boric acid	10043-35-3	233-139-2	30, 75
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances				
This product is not subject to Part 1 or 2 of Annex I.				

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H360FD May damage fertility. May damage the unborn child.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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