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Replaced version: 1.0.1, issued: 02.09.2014

Region: GB

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name DNA-500 Marker OEM (200pcs)

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

Relevant identified uses of the substance or mixture Chemical processes general 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 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.

This product does not meet the classification criteria given in the Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

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

Hazard pictograms

Signal word

Hazard statement(s)

Hazard statements (EU)EUH210Safety data sheet available on request.Precautionary statement(s)

Labelling information

The labelling (EU hazard statements) meets the criteria of annex II of Directive (EC) Nr. 1272/2008 (CLP).

2.3 Other hazards

No data available.

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SECTION 3: Composition/information on ingredients

3.1 Substances

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		Addition	nal information		
	CAS / EC / Index /	Classification (EC) 1272/2008 (CLP)	Concen	tration		%
	REACH no					
1	boric acid					
	10043-35-3	Repr. 1B; H360FD	>	0.50 - <	1.00	%-b.w.
	233-139-2					
	005-007-00-2					
	-					

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

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	Repr. 1B; H360FD: C >= 5.5%	-	-

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.

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6.3	Methods and material for containmen Pick up with absorbent material (e.g., sand, s heading "Disposal considerations".	i t and cleaning up sawdust, general-purpose binder). When picked up, treat material as	s prescribed under
6.4	Reference to other sections No data available.		
SEC	TION 7: Handling and storage		
7.1	Precautions for safe handling		
	General protective and hygiene measures Do not eat, drink or smoke during work time. Provide eye wash fountain in work area.	s . Keep away from foodstuffs and beverages. Wash hands before bre	aks and after work.
7.2	Conditions for safe storage, including	g any incompatibilities	
	Technical measures and storage condition Keep container dry in a cool, well-ventilated		
	Recommended storage temperature Value	-20 °C	
	Requirements for storage rooms and ves Containers which are opened must be carefu	sels ully closed and kept upright to prevent leakage.	
7.3	Specific end use(s) No data available.		
SEC	TION 8: Exposure controls/persona	I protection	
SEC 8.1	TION 8: Exposure controls/persona Control parameters No parameters available for monitoring.	I protection	
8.1	Control parameters	I protection	
8.1	Control parameters No parameters available for monitoring.	I protection	
	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls	I protection	
8.1	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls No data available. Personal protective equipment Respiratory protection If workplace exposure limits are exceeded, a	a respiration protection approved for this particular job must be worn. res for breathing protection in the event workplace threshold values	
8.1	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls No data available. Personal protective equipment Respiratory protection If workplace exposure limits are exceeded, a	a respiration protection approved for this particular job must be worn.	
8.1	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls No data available. Personal protective equipment Respiratory protection If workplace exposure limits are exceeded, a and mist formation, take appropriate measur Eye / face protection Safety glasses (EN 166) Hand protection In case of intensive contact, wear protective workplace conditions (e.g. mechanical resist	a respiration protection approved for this particular job must be worn.	are not specified. r the specific
8.1	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls No data available. Personal protective equipment Respiratory protection If workplace exposure limits are exceeded, a and mist formation, take appropriate measur Eye / face protection Safety glasses (EN 166) Hand protection In case of intensive contact, wear protective workplace conditions (e.g. mechanical resist	a respiration protection approved for this particular job must be worn. res for breathing protection in the event workplace threshold values gloves (EN 374). Check in any case suitability of protective glove for ance, product compatibility, antistatic properties). Adhere to the mar	are not specified. r the specific
8.1	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls No data available. Personal protective equipment Respiratory protection If workplace exposure limits are exceeded, a and mist formation, take appropriate measur Eye / face protection Safety glasses (EN 166) Hand protection In case of intensive contact, wear protective workplace conditions (e.g. mechanical resist instructions and information relating to the us Other	a respiration protection approved for this particular job must be worn. res for breathing protection in the event workplace threshold values gloves (EN 374). Check in any case suitability of protective glove for ance, product compatibility, antistatic properties). Adhere to the mar	are not specified. r the specific
3.1	Control parameters No parameters available for monitoring. Exposure controls Appropriate engineering controls No data available. Personal protective equipment Respiratory protection If workplace exposure limits are exceeded, a and mist formation, take appropriate measur Eye / face protection Safety glasses (EN 166) Hand protection In case of intensive contact, wear protective workplace conditions (e.g. mechanical resist instructions and information relating to the us Other Normal chemical work clothing. Environmental exposure controls	a respiration protection approved for this particular job must be worn. res for breathing protection in the event workplace threshold values gloves (EN 374). Check in any case suitability of protective glove for ance, product compatibility, antistatic properties). Adhere to the mar se, storage, care and replacement of protective gloves.	are not specified. r the specific

1 only o olo u		
liquid		
colourless, clear		
Odour		
Odoui		
odourless		
Odour threshold		
No data available		
pH value		
Value	8.3	
Reference temperature	20 °C	

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Boiling point / boiling range	appr.	100	٦°	
	αρρι.	100		
Melting point / melting range No data available				
Decomposition point / decomposition ran No data available	ige			
Flash point Not applicable				
Auto-ignition temperature No data available				
Oxidising properties No data available				
Explosive properties No data available				
Flammability (solid, gas)				
Lower flammability or explosive limits No data available				
Upper flammability or explosive limits No data available				
Vapour pressure No data available				
Vapour density				
No data available				
Evaporation rate				
No data available				
Relative density				
No data available				
Density				
No data available				
Solubility in water				
Remarks	soluble			
Solubility(ies)				
No data available				
Partition coefficient: n-octanol/water				
No data available				
Viscosity				
No data available				
Other information				

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

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10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
No Product Name			
1 DNA-500 Marker OEM (200pcs)	2.660	- 5.140	mg/kg
Species	rat	- 0.140	ilig/kg
Reference substance	boric acid		
Acute dermal toxicity			
No data available			
Acute inhalational toxicity			
No data available			
Skin corrosion/irritation			
No Product Name			
1 DNA-500 Marker OEM (200pcs) Reference substance	boric acid		
Evaluation	irritant		
Serious eye damage/irritation	•		
No Product Name			
1 DNA-500 Marker OEM (200pcs)			
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			
Other information			
Exercise customary precautions when handling chemic	als.		

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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.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil No data available.

12.5 Results of PBT and vPvB assessment No data available.

12.6 Other adverse effects

No data available.

12.7 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

Residuals 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.

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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 Transport in bulk according to Annex II of Marpol and the IBC Code Not relevant

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU regulations</u>

	ording to the data available and/or specificatio idered as substances requiring authorisation a			
0115	idered as substances requiring autionsation a	as listed of Annex XIV of the REACH ret	Julation (EC) 1907/200	0.
REA	CH candidate list of substances of very high	gh concern (SVHC) for authorisation		
(EC	product contains following substance(s) meeti) 1907/2006) that are placed on the list of can orisation).			
	Cultotones nome	CAS no.	EC no.	
lo	Substance name	CAS IIU.		
No	boric acid	10043-35-3	233-139-2	2
Regi		10043-35-3 XVII: RESTRICTIONS ON THE MANUF NCES, PREPARATIONS AND ARTICLE	233-139-2 ACTURE, PLACING O	ON THE MARKET
Regi	boric acid ulation (EC) No 1907/2006 (REACH) Annex USE OF CERTAIN DANGEROUS SUBSTAI	10043-35-3 XVII: RESTRICTIONS ON THE MANUF NCES, PREPARATIONS AND ARTICLE	233-139-2 ACTURE, PLACING O	ON THE MARKET

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.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

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 chapter.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)H360FDMay damage fertility. May damage the unborn child.

Department issuing safety data sheet

UMCO GmbH

Georg-Wilhelm-Str. 187, D-21107 Hamburg Tel.: +49 40 / 555 546 300 Fax: +49 40 / 555 546 357 e-mail: umco@umco.de

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.

EC safety data sheet



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Alterations/supplements:

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