

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

### 1.1 Product identifier

#### DumaEDTA, for calibration standard, 10g Article number: 14-0032

Registration number	01-2119486399-18-XXXX
IUPAC	Ethylenediaminetetraacetic acid
EU-INDEX	607-429-00-8
EINECS/ELINCS	200-449-4
CAS	60-00-4

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

#### 1.2.1 Relevant uses

Analytical chemistry

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

Company	C. Gerhardt GmbH & Co. KG Cäsariusstraße 97 53639 Königswinter / GERMANY Phone +49 (0)2223 2999 - 0 Fax +49 (0)2223 2999 - 99 Homepage <a href="http://www.gerhardt.de">www.gerhardt.de</a> E-mail <a href="mailto:info@gerhardt.de">info@gerhardt.de</a>
Address enquiries to	
Technical information	<a href="mailto:info@gerhardt.de">info@gerhardt.de</a>
Safety Data Sheet	<a href="mailto:sdb@chemiebuero.de">sdb@chemiebuero.de</a> (No dispatch of safety data sheets) Safety data sheets are available from the supplier.

### 1.4 Emergency telephone number

Company	+49 (0) 2223 2999-0 Mo-Fr 8:00 - 16:00
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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Eye Irrit. 2: H319 Causes serious eye irritation.

### 2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

#### Hazard pictograms



#### Signal word

WARNING

#### Hazard statements

H319 Causes serious eye irritation.

#### Precautionary statements

P280 Wear protective gloves / eye protection.  
P337+P313 If eye irritation persists: Get medical advice / attention.

## 2.3 Other hazards

Human health dangers	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Environmental hazards	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. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other hazards	Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

### 3.1 Substances

The product is a substance.

Range [%]	Substance
100	Ethylenediaminetetraacetic acid CAS: 60-00-4, EINECS/ELINCS: 200-449-4, EU-INDEX: 607-429-00-8, Reg-No.: 01-2119486399-18-XXXX GHS/CLP: Eye Irrit. 2: H319

Comment on component parts For full text of H-statements: see SECTION 16.

### 3.2 Mixtures

not applicable

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General information	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	When in contact with the skin, clean with soap and water.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Seek medical advice.

### 4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

Suitable extinguishing media	Foam, dry powder, water spray jet, carbon dioxide
Extinguishing media that must not be used	Full water jet

## 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Ammonia (NH<sub>3</sub>).  
Nitrogen oxides (NO<sub>x</sub>).  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide (CO)

## 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues must be disposed of in accordance within the local regulations.

# SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Use breathing apparatus if exposed to dust.  
Wear suitable protective equipment. For personal protection see SECTION 8.

## 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.  
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

## 6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid production of dust.  
Dispose of absorbed material in accordance within the regulations.

## 6.4 Reference to other sections

See SECTION 8+13

# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

The normal safety precautions for handling chemicals must be observed.  
Provide suitable vacuuming at the processing area.  
Avoid the formation and deposition of dust.  
Avoid contact with eyes and skin. Use personal protective equipment.  
The product is combustible.  
Do not eat, drink or smoke when using this product.  
Use barrier skin cream.  
Wash hands before breaks and after work.  
Take off contaminated clothing and wash before reuse.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with oxidizing agents.  
Do not store together with food and animal food/diet.  
Keep container tightly closed.  
Protect from heat/overheating.  
Keep in a cool place. Store in a dry place.

## 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored (UK)

not relevant

#### Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

#### DNEL

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
Industrial, inhalative, Long-term - systemic effects, 1,5 mg/m <sup>3</sup>
Industrial, inhalative, Acute - local effects, 3 mg/m <sup>3</sup>
Industrial, inhalative, Long-term - local effects, 1,5 mg/m <sup>3</sup>
general population, oral, Long-term - systemic effects, 25 mg/kg bw/day
general population, inhalative, Long-term - local effects, 0,6 mg/m <sup>3</sup>
general population, inhalative, Acute - local effects, 1,2 mg/m <sup>3</sup>

#### PNEC

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
freshwater, 2,17 mg/L
seawater, 0,217 mg/L
sewage treatment plants (STP), 50 mg/L
soil, 1,11 mg/kg

### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m <sup>3</sup> particle inhalable; 1,25 mg/m <sup>3</sup> particle respirable).
<b>Eye protection</b>	safety glasses (EN 166:2001)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. 0,6 mm; natural latex, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	light protective clothing
<b>Other</b>	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	Respiratory protection in the case of dust formation. Use Safety mask. (DIN EN 149)
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	solid
Form	powder
Color	colourless
Odor	odourless
Odour threshold	not applicable
pH-value	No information available.
pH-value [1%]	No information available.
Boiling point or initial boiling point and boiling range [°C]	not applicable
Flash point [°C]	not applicable
Flammability	Combustible
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm³]	0,86 (20 °C)
Relative density	No information available.
Bulk density [kg/m³]	ca. 680
Solubility in water	0,4 g/L (20 °C)
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	-3,34
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Melting point [°C]	240
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

Strong heating.

#### 10.5 Incompatible materials

Oxidizing agent

#### 10.6 Hazardous decomposition products

No decomposition if used and stored according to specifications.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute oral toxicity

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
LD10, oral, Rat, 4500 mg/kg, OECD 401

Acute dermal toxicity No information available.

Acute inhalational toxicity No information available.

Serious eye damage/irritation Irritant  
Based on the available information, the classification criteria are fulfilled.  
Harmonised Classification.

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
Rabbit (eye), OECD 405, irritant

#### Skin corrosion/irritation

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
dermal, Rabbit, OECD 404, non-irritating

#### Respiratory or skin sensitisation

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
dermal, Guinea pig, OECD 406, negativ

Specific target organ toxicity — single exposure No information available.

Specific target organ toxicity — repeated exposure No information available.

#### Mutagenicity

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
oral, mouse, in vivo, OECD 474, negativ

Reproduction toxicity No information available.

#### - Fertility

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
Study, negativ

#### - Development

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
Study, negativ

Carcinogenicity No information available.

Aspiration hazard No information available.

**General remarks**

none

**11.2 Information on other hazards**

**11.2.1 Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**11.2.2 Other information**

none

**SECTION 12: Ecological information**

**12.1 Toxicity**

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
LC50, (96h), Fish, 41 mg/L
LC50, (96h), Pimephales promelas, 59,8 mg/L
EC50, (24h), Daphnia magna, 1033 mg/L

**12.2 Persistence and degradability**

**Behaviour in environment compartments**

No information available.

**Behaviour in sewage plant**

No information available.

**Biological degradability**

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
(28d), 20%, OECD 302 B, The product is not readily biodegradable.

**12.3 Bioaccumulative potential**

Substance
Ethylenediaminetetraacetic acid, CAS: 60-00-4
log Pow, 0,13

**12.4 Mobility in soil**

The product is poorly water-soluble.

**12.5 Results of PBT and vPvB assessment**

Based on all available information not to be classified as PBT or vPvB respectively.

**12.6 Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects**

Do not discharge product unmonitored into the environment or into the drainage.



## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Coordinate disposal with the authorities if necessary.

#### Waste no. (recommended)

070799

#### Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.

#### Waste no. (recommended)

150110\* packaging containing residues of or contaminated by hazardous substances

## SECTION 14: Transport information

### 14.1 UN number or ID number

#### Transport by land according to ADR/RID

not applicable

#### Inland navigation (ADN)

not applicable

#### Marine transport in accordance with IMDG

not applicable

Air transport in accordance with IATA not applicable

### 14.2 UN proper shipping name

#### Transport by land according to ADR/RID

NO DANGEROUS GOODS

#### Inland navigation (ADN)

NO DANGEROUS GOODS

#### Marine transport in accordance with IMDG

NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

### 14.3 Transport hazard class(es)

#### Transport by land according to ADR/RID

not applicable

#### Inland navigation (ADN)

not applicable

#### Marine transport in accordance with IMDG

not applicable

Air transport in accordance with IATA not applicable

#### 14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

<b>EEC-REGULATIONS</b>	2008/98/EG (2000/532/EC ); 2010/75/EU; 2004/42/EG; (EG) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEG ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148; (EU) 2019/1021, (EU) 2023/707
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 75
<b>TRANSPORT-REGULATIONS</b>	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024)
<b>NATIONAL REGULATIONS (UK):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for young people.
- VOC (2010/75/CE)	0 %

#### 15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 3)

H319 Causes serious eye irritation.

## 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
EL50 = Median effective loading  
ELINCS = European List of Notified Chemical Substances  
EmS = Emergency Schedules  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
IVIS = In vitro irritation score  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
LL50 = Median lethal loading  
LQ = Limited Quantities  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV®/TWA = Threshold limit value – time-weighted average  
TLV®STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

## 16.3 Other information

### Classification procedure

Eye Irrit. 2: H319 Causes serious eye irritation. (On basis of test data)

### Modified position

2.3, 5.2, 11.1, 11.2, 12.3, 12.4, 12.6, 15.1

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