

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 1 of 11

## 1. Identification of the Substance/Mixture and of the Company

### 1.1 Product Identifier

Trade name: *abberior* CAGE 500 carboxylic acid  
*abberior* CAGE 500 NHS ester  
*abberior* CAGE 500 maleimide  
*abberior* CAGE 500 biotin  
*abberior* CAGE 500 azide

### 1.2 Relevant identified uses and uses advised against

Fluorescent dye for physical/chemical research purposes, spectroscopy, and optical microscopy in biological and biomedical applications.

This product is sold for research and development purposes only and *must not* be used for any human or animal therapeutic, clinical diagnostic or other medical purpose. It is not intended for food, drug, household, agricultural, or cosmetic use.

### 1.3 Details of the Supplier of the Safety Data Sheet

#### Manufacturer / Distributor

Abberior GmbH

#### Street / PO Box

Hans-Adolf-Krebs-Weg 1

#### Country Code / Postal Code / City

DE – 37077 Göttingen, Germany

#### Contact for Technical Inquiries

Dr. Lars Kastруп, +49 551 30724–180, l.kastруп@abberior.com

#### Phone / Fax / E-Mail

+49 551 30724–180 / +49 551 30724–181 / l.kastруп@abberior.com

### 1.4 Emergency Telephone Numbers

ITALY:

**+39 06 305 4343**

(Centro Antiveleni, Roma, [www.tox.it](http://www.tox.it))

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 2 of 11

FINLAND:	<b>+358 9 471 977</b> (24h / 7 days) (Poison Information Centre, Helsinki, <a href="http://www.hus.fi/default.asp?path=59,403,19336,9739,9541">www.hus.fi/default.asp?path=59,403,19336,9739,9541</a> )
FRANCE:	<b>+33 1 40 05 48 48</b> (24h / 7 days) (Centres antipoison et de toxicovigilance, Paris, <a href="http://www.centres-antipoison.net">www.centres-antipoison.net</a> )
GERMANY:	<b>+49 551 19240</b> (24h / 7 days) (Giftinformationszentrum-Nord, Göttingen, <a href="http://www.giz-nord.de">www.giz-nord.de</a> )
ISRAEL:	<b>+972 4 854 1900</b> (Israel Poisons Information Centre, Haifa)
RUSSIA: Medical	<b>+7 495 628 16 87</b> (24h / 7 days) (Research and Applied Toxicology Centre (RATC) of Federal Biological Agency, Moscow, <a href="http://www.rtiac.org">www.rtiac.org</a> )
SPAIN:	<b>+34 91 562 04 20</b> (Servicio de Información Toxicológica, Instituto Nacional de Toxicología, Madrid)
SWEDEN:	<b>112</b> , international: <b>+46 (0) 10 456 6700</b> (24h / 7 days) (Giftinformationscentralen, Stockholm, <a href="http://www.giftinformation.se">www.giftinformation.se</a> )
SWITZERLAND:	<b>145</b> , international: <b>+41 44 251 51 51</b> (24h / 7 days) (Swiss Toxicological Information Centre, <a href="http://www.toxi.ch">www.toxi.ch</a> )
UNITED KINGDOM:	<b>+44 844 892 0111</b> (24h / 7 days) (National Poisons Information Service, Birmingham Unit, <a href="http://www.npis.org">www.npis.org</a> ) <b>+44 870 600 6266</b> (24h / 7 days) (UK National Poisons Emergency number, available to health professionals only!)
UNITED STATES Of AMERICA:	<b>+1 800 222 1222</b> (24h / 7 days) (National Capital Poison Center, <a href="http://www.poison.org">www.poison.org</a> )

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 3 of 11

See [http://www.who.int/gho/phe/chemical\\_safety/poisons\\_centres/en/](http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/) for a worldwide directory of poison control centres.

## 2. Hazards Identification

### 2.1 Classification of the Substance or Mixture

The substance has not been finally and officially classified. To date, no health hazards have been reported nor do we know of any unreported or unpublished health hazards. However, the substance should be treated as potentially hazardous.

### 2.2 Labelling According to Regulation (EC) No 1272/2008 [CLP/GHS]

A final and binding classification has not been done.

#### Hazard Statements (H-phrases)

The product was not tested for hazards.

#### Precautionary Statements (P-phrases)

##### Prevention:

P261	Avoid breathing dust/fume/gas/mist/vapours/spray .
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P235 + P410	Keep cool. Protect from sunlight.

##### Reponse:

P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P309 + P311	IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician.

##### Storage:

P402	Store in a dry place.
------	-----------------------

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 4 of 11

P404 Store in a closed container.

P411 + P235 Store at temperatures not exceeding  $-15\text{ }^{\circ}\text{C}$ .**Additional Labelling**

Substance not fully tested.

**2.3 Other Hazards**

No further hazards are known.

**3. Composition/Information on Ingredients****3.1 Substances**

Photoactivatable, water soluble rhodamine dye.

**Impurities and Stabilizers**

None.

**3.2 Mixtures**

The product is a pure substance, not a mixture.

**4. First Aid Measures****4.1 Description of First Aid Measures**

In case of exposure or if you feel unwell seek medical advice (show the label where possible).

**Following Inhalation**

Move to fresh air. Seek medical advice in case of irritation of the respiratory tract.

**Following Skin Contact**

Rinse skin with plenty of water.

**Following Eye Contact**

Remove contact lenses. Immediately rinse with plenty of water, also under the eyelid. Proceed for at least 15 minutes. Consult an ophthalmologist.

**Following Ingestion**

Immediately wash your mouth with plenty of water. Consult a doctor.

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 5 of 11

#### **4.2 Most Important Symptoms and Effects, Both Acute and Delayed**

No information available.

#### **4.3 Indication of any Immediate Medical Attention and Special Treatment Needed**

If unconscious call an emergency. Consult a poison control center (see Section 1.4) before administering an antidote.

### **5. Fire-Fighting Measures**

#### **5.1 Extinguishing Media**

Suitable: extinguishing foam, carbon dioxide, dry extinguishing powder, water spray water.

Unsuitable: full water jet.

#### **5.2 Special Hazards Arising from the Substance or Mixture**

No information available.

#### **5.3 Advice for Fire-Fighters**

Wear self-contained breathing apparatus.

Cool endangered containers with water spray from a safe distance.

Defeat evolving vapours with water.

Keep quench water away from drains, surface, and ground water and soil.

Wear protective suit to avoid skin contact; stay in safe distance.

### **6. Accidental Release Measures**

#### **6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Ensure adequate ventilation.

#### **6.2 Environmental Precautions**

Dissolved material should not enter drains.

#### **6.3 Methods and Material for Containment and Cleaning up**

Collect escaped material mechanically. Soak up dissolved product with inert absorbent material.

Collect material in dedicated, properly labeled containers. Dispose in accordance with federal, state and local regulations. Do not dispose dissolved material into drains.

#### **6.4 Reference to Other Sections**

Follow protective measures given in Sections 7 and 8.

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 6 of 11

## 7. Handling and Storage

### 7.1 Precautions for Safe Handling

Follow good hygiene and safety practices:

- No eating, drinking and smoking in working areas.
- Wash hands after use.
- Take off contaminated clothing and protective equipment before entering eating areas.

### 7.2 Conditions for Safe Storage, Including any Incompatibilities

#### Technical Measures and Storage Conditions

Store the product at  $-20\text{ }^{\circ}\text{C}$ . Keep dry and in the dark.

The product must not be stored together with pharmaceuticals, foods and feedstuff.

### 7.3 Specific End Uses

Fluorescent dye for physical/chemical research purposes, spectroscopy, and optical microscopy in biological and biomedical applications.

## 8. Exposure Controls / Personal Protection

### 8.1 Control Parameters

No information available.

#### Exposure Values

No information available.

### 8.2 Exposure Controls

#### Appropriate Engineering Controls

Work in a fume cupboard or use a source extraction.

#### Personal Protection Equipment

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

#### Respiratory Protection

No breathing apparatus necessary when working properly in a fume cupboard.

#### Skin Protection

Wear protective gloves according to EN 374.

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 7 of 11

**Eye Protection**

Wear safety goggles according to EN 166:2001.

**Environmental Exposure Controls**

See Sections 6 and 7.

**9. Physical and Chemical Properties****9.1 Basic Physical and Chemical Properties****Appearance:** solid**Molecular Weight:** 562,1 g/mol (carboxylic acid)

659.5 g/mol (NHS ester)

684.5 g/mol (maleimide)

830,5 g/mol (biotin)

644,1 g/mol (azide)

**Solubility:** soluble in alcohols, acetonitrile, DMSO, DMF**Explosive Properties:** The product is not explosive.**9.2 Other Properties**

No other properties available.

**10. Stability and Reactivity****10.1 Reactivity**

No reactivity with significant heat production known.

**10.2 Chemical Stability**

The product is chemically stable under ambient conditions (room temperature).

**10.3 Possibility of Hazardous Reactions**

No hazardous reactions known when used properly.

**10.4 Conditions to Avoid**

No information available.

**10.5 Incompatible Materials**

No incompatible materials known.

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 8 of 11

## 10.6 Hazardous Decomposition Products

No hazardous decomposition products known.

## 11. Toxicological Information

### 11.1 Information on Toxicological Effects

The substance has not been tested for toxicological effects. No toxicological effects have been described for the substance.

#### Acute Toxicity

Not tested.

#### Skin Corrosion/Irritation

Not tested.

#### Serious Eye Damage/Irritation

Not tested.

#### Respiratory or Skin Sensitisation

Not tested.

#### Toxicity on Repeated Exposure

Not tested.

#### Carcinogenicity

Not tested.

#### Mutagenicity

Not tested.

#### Toxicity for Reproduction

Not tested.

## 12. Ecological Information

### 12.1 Toxicity

The substance has not been tested for environmental toxicity. No toxicological effects have been described for the substance.



Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 9 of 11

**12.2 Persistence and Degradability**

Not tested.

**12.3 Bioaccumulative Potential**

Not tested.

**12.4 Mobility in Soil**

Not tested.

**12.5 Results of PBT and vPvB Assessment**

Not tested.

**12.6 Other Adverse Effects**

Not tested. No adverse are known when handled and disposed properly.

**12.7 Additional Information**

Not tested.

**13. Disposal Considerations****13.1 Waste Treatment Methods**

Dispose in accordance with federal, state and local regulations.

**14. Transport Information****14.1 UN Number**

Not determined.

**14.2 Proper Shipping Name**

Not determined.

**14.3 Hazard Class**

Not determined.

**14.4 Packaging Group**

Not classified.

**14.5 Environmental Hazards**

Not classified.

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 10 of 11

## 14.6 Special Precautions for User

See Sections 6 – 8.

## 14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not classified.

## 15. Regulatory Information

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Not classified. To the best of our knowledge safety, health and environmental regulations according to VO (EC) 1907/2006 are not applicable.

### 15.2 Chemical Safety Assessment

No safety assessment has been conducted.

## 16. Other Information

This product is intended for use only by persons with proper skills and at their own risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal.

The recommendations given in this data sheet are based on prudent application of professional judgment. The information is given as a guide but shall not be taken as complete. As this product may pose unknown hazards it should be used with caution.

Since Abberior GmbH cannot control the conditions of use of the product, it shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SAFETY DATA SHEET DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

### EU Regulations

Regulation (EC) No. 1907/2006 (REACH), revised by Regulation (EU) No. 253/2011.

Regulation (EC) No. 1272/2008, revised by Regulation (EC) No. 790/2009.

### U.S. Federal Regulations

#### SARA 313

Not regulated by SARA.

#### Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

Does not contain HAPs.

Trade name: *abberior* CAGE 500 derivative

Created on: 2011-10-20

Revision date: 2020-12-02

Valid after: 2020-12-02

Version: 1.3 / EN

Replaces version: 1.2 / EN

Page 11 of 11

**German Regulations***Zubereitungsrichtlinie* (1999/45/EG), revised by Regulation (EG) No. 1907/2006.*Stoffrichtlinie* (67/548/EWG), revised by Regulation 2009/2/EG.**Abbreviations & Acronyms**

CAS	Chemical Abstracts Service
DMF	<i>N,N'</i> -Dimethylformamide
DMSO	Dimethylsulfoxide
NHS	<i>N</i> -Hydroxysuccinimide

**Contact Persons for this Data Sheet**

Dr. Gerald Donnert

Dr. Lars Kastrop

Abberior GmbH

Abberior GmbH

Hans-Adolf-Krebs-Weg 1

Hans-Adolf-Krebs-Weg 1

37077 Göttingen

37077 Göttingen

Phone: +49 551 30724-180

Phone: +49 551 30724-180

E-Mail: g.donnert@abberior.com

E-Mail: l.kastrop@abberior.com