

# 5/6-Carboxytetramethylrhodamine NHS ester, mixed isomers (5/6-TAMRA-SE)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Issue date: 5/2/2022 Version: 1.0

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

#### 1.1. Product identifier

Product form	: Substance
Trade name	: 5/6-Carboxytetramethylrhodamine NHS ester, mixed isomers (5/6-TAMRA-SE)
Chemical name	: 1-({[3',6'-Bis(dimethylamino)-3-oxo-3H-spiro[2-benzofuran-1,9'-xa nthen]-5-yl]carbonyl}oxy)-2,5-pyrrolidinedione
CAS-No.	: 246256-50-8
Product code	: AF-0102
Type of product	: Synthesis Reagent
Formula	: C29H25N3O7
Synonyms	: 5(6)-TAMRA-NHS, mixed isomers ; 5(6)-TAMRA-SE, mixed isomers ; NHS-Rhodamine
Product group	: End product

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

##### 1.2.1. Relevant identified uses

Main use category	: Industrial use,Laboratory chemical
Industrial/Professional use spec	: For professional use only Industrial
Use of the substance/mixture	: Laboratory chemicals Substance manufacture
Function or use category	: Laboratory chemicals

##### 1.2.2. Uses advised against

No additional information available

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

emp Biotech GmbH  
Robert-Rössle-Str. 10  
13125 Berlin - Deutschland  
T +49 (0)30 94 89 22 01 (Monday-Friday, 9:00 am-5:00 pm) - F +49 (0)30 94 89 32 01  
[info@empbiotech.com](mailto:info@empbiotech.com) - [www.empbiotech.com](http://www.empbiotech.com)

#### 1.4. Emergency telephone number

Emergency number	: Giftnotruf Berlin +49 30 30686700 (Beratung in Deutsch), 24 Stunden, 7 Tage/Woche; International: INFOTRAC +1-352-323-3500 (Phone) or in the US 800-535-5053 (toll-free), 24 hours/day, 7 days/week
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H335

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

: Warning

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Hazard statements (CLP)	: H302 - Harmful if swallowed. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.
Precautionary statements (CLP)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/aerosol. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
9-[2-carboxy-4(or 5)-[[[2,5-dioxo-1-pyrrolidinyl]oxy]-carbonyl]phenyl]- 3,6-bis-(dimethylamino)-Xanthylium, inner salt	(CAS-No.) 246256-50-8	100

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

First-aid measures general	: Consult a doctor. Show this safety data sheet to the doctor in attendance.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Ask for medical advice.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Ask for medical advice.
First-aid measures after ingestion	: Rinse mouth out with water. Do not induce vomiting. Never attempt to induce vomiting : risk of inhalation. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : The most important known symptoms and effects are described on the label (see 2.2) and / or in section 11.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : At high temperatures : Combustible.  
Reactivity in case of fire : In case of fire: hazardous combustion gases or vapors possible.

### 5.3. Advice for firefighters

Protection during firefighting : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment : For personal protection see section 8.  
Emergency procedures : Avoid creating or spreading dust. Do not breathe vapour, mist or gas. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, observe emergency procedures, consult an expert. Avoid substance contact. Evacuate unnecessary personnel.

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### 6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

Methods for cleaning up : Shovel or sweep up and put in a closed container for disposal.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin, eyes and clothing. Avoid formation of dust and aerosols.  
. Keep away from sources of ignition - No smoking.  
Hygiene measures : No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a well-ventilated, dry place. Store in cool place.  
Storage temperature : -20 °C  
Storage area : Storage class (TRGS 510): See section 15.1.2.

### 7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 5/6-Carboxytetramethylrhodamine NHS ester, mixed isomers (5/6-TAMRA-SE) (246256-50-8)

Germany	Contains no substances with occupational exposure limits
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### 8.2. Exposure controls

#### Hand protection:

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

#### Eye protection:

Safety glasses. EN 166

#### Skin and body protection:

Antistatic clothing. Wear fire/flammable resistant/retardant clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended



#### Environmental exposure controls:

Do not let product enter drains. Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Molecular mass : 527.52 g/mol

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Colour	: dark red to dark violet.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Slightly soluble in: Water. Soluble in methanol. Soluble in dimethylformamide.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: product does not present an explosion hazard.
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under the specified storage conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Light sensitive. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

May decompose under the influence of light. Slow decomposition with high humidity and/or in presence of water. Carbon oxides. Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Harmful if swallowed.
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified

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Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: May be irritating to mucous membranes and upper respiratory tract.
Other information	: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Offer surplus and non-recyclable solutions to a licensed disposal company.  
. Product residues are to be disposed of in compliance with national and regional regulations dispose. Keep chemicals in original containers. Not with other waste mix. Uncleaned containers are to be treated according to the product.

Product/Packaging disposal recommendations : Contaminated packaging to be disposed as unused product.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
<b>14.1. UN number</b>		
Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>		
Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Not applicable	Not applicable	Not applicable
No supplementary information available		

#### 14.6. Special precautions for user

##### - Overland transport

Not applicable

##### - Transport by sea

Not applicable

##### - Air transport

Not applicable

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### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

5/6-Carboxytetramethylrhodamine NHS ester, mixed isomers (5/6-TAMRA-SE) is not on the REACH Candidate List

5/6-Carboxytetramethylrhodamine NHS ester, mixed isomers (5/6-TAMRA-SE) is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Regulatory reference	: WGK 3, Highly hazardous to water
WGK remark	: Internal company classification
Storage class (LGK, TRGS 510)	: LGK 13 - Non-combustible solids
Employment restrictions	: Observe restrictions according Act on the Protection of Working Mothers (MuSchG) Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### 15.2. Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

MSDS (Reach Anhang II) EMP

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*