

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

### 1.1 Product identifier

**Trade name:** EdU Click-488

**Article number:** 7773

**Registration number** Mixture - Registration numbers of the components, see Chapter 3

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

#### Application of the substance / the mixture

Laboratory chemical

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

#### Manufacturer/Supplier:

Carl Roth GmbH + Co.KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

e-mail: [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Further information obtainable from:** Department Health, Safety and Environment

### 1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 2.2 Label elements

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

The product is classified and labelled according to the CLP regulation.

#### Hazard pictograms



GHS07



GHS09

**Signal word** Warning

#### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(Contd. on page 2)

**Trade name: EdU Click-488**

(Contd. of page 1)

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

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

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Additional information:**

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**Labelling of packages where the contents do not exceed 125 ml****Hazard pictograms**

GHS07

GHS09

**Signal word** Warning**Hazard statements** Void**Precautionary statements**

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

P302+P352 IF ON SKIN: Wash with plenty of water.

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**

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.

<b>Dangerous components:</b>		
CAS: 61135-33-9	5-Ethynyl-2'-deoxyuridine ☠ T Muta. Cat. 2, Repr. Cat. 2 R46-61 ☠ Muta. 1B, H340; Repr. 1B, H360	0.5-<1%
CAS: 7758-98-7 EINECS: 231-847-6 Index Number: 029-004-00-0	copper sulphate ☠ Xn R22; ☠ Xi R36/38; ☠ N R50/53 ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ☠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	0.1-<0.25%

**Additional information:** For the wording of the listed risk phrases refer to section 16.**SECTION 4: First aid measures**

(Contd. on page 3)

**Trade name: EdU Click-488**

(Contd. of page 2)

**4.1 Description of first aid measures****General information:**

Remove any clothing soiled by the product.

**After inhalation:**

Supply fresh air.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

**After eye contact:**

Rinse opened eye for 10 minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and drink a glass of water. Do not induce vomiting.

Seek medical advice immediately and show the container or label.

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

We have no description of any toxic symptoms.

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

No further relevant information available.

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

Use fire extinguishing methods suitable to surrounding conditions.

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following can be released:Nitrogen oxides (NO<sub>x</sub>)

Hydrogen chloride (HCl)

Sulphure oxides (SO<sub>x</sub>)

Carbon monoxide and carbon dioxide

**5.3 Advice for firefighters****Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

**Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Prevent fire-fighting water from entering surface water or groundwater.

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

Ensure adequate ventilation

Avoid formation of dust.

Wear personal protective equipment.

Evacuate the danger area, observe emergency procedures, consult an expert.

(Contd. on page 4)



**Trade name: EdU Click-488**

(Contd. of page 3)

### 6.2 Environmental precautions

Do not allow to enter sewers/ground water or penetrate the soil.  
Keep contaminated washing water and dispose of appropriately.

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

Pick up mechanically.  
Dispose of the material collected according to regulations.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of dust.  
Handling corresponding to laboratory safety guidelines.

#### Information about fire - and explosion protection:

No special measures required.

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

#### Storage:

#### Requirements to be met by storerooms and receptacles:

Prevent any seepage into the ground.

#### Information about storage in one common storage facility:

Store away from foodstuffs.

#### Further information about storage conditions:

Open receptacle only under localised extractor facilities.

**Recommended storage temperature:** According to product specification.

### 7.3 Specific end use(s)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

#### Additional information about design of technical facilities:

No further data; see item 7.

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### Additional information:

The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Personal protective equipment:

#### General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.  
Do not breathe dust.  
Avoid contact with the eyes and skin.

(Contd. on page 5)

**Trade name: EdU Click-488**

(Contd. of page 4)

Wash hands before breaks and at the end of work.

**Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter P1 (colour code: white)

Required when dusts are generated.

**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Nitrile, thickness:  $\geq 0.11$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

Value for the permeation: Level  $\geq 6$

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, thickness:  $\geq 0.11$  mm

Value for the permeation: Level  $\geq 6$

**Eye protection:**

Tightly sealed goggles

**Body protection:**

Protective work clothing

(Contd. on page 6)



Trade name: EdU Click-488

(Contd. of page 5)

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

Form:	According to product specification.
Colour:	According to product specification
Odour:	No information available.
Odour threshold:	No information available.

pH-value at 20 °C: 7

#### Change in condition

Melting point/Melting range:	~220 °C
Boiling point/Boiling range:	No information available.

Flash point: No information available

Flammability (solid, gaseous): No information available

Ignition temperature: > 270 °C

Decomposition temperature: No information available

Self-igniting: No information available

Danger of explosion: Product does not present an explosion hazard.

#### Explosion limits:

Lower:	No information available.
Upper:	No information available.

Oxidizing properties: No information available.

Vapour pressure: No information available

#### Density:

Bulk density at 20 °C:	700 - 1000 kg/m <sup>3</sup>
Relative density	No information available.
Vapour density	No information available
Evaporation rate	No information available

Solubility in / Miscibility with water at 20 °C: ca. 600 g/l

Partition coefficient (n-octanol/water): No information available

#### Viscosity:

Dynamic:	No information available.
Kinematic:	No information available.

9.2 Other information No further relevant information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

(Contd. on page 7)

**Trade name: EdU Click-488**

(Contd. of page 6)

**10.3 Possibility of hazardous reactions**

Exothermic reaction with:

Strong oxidants

**10.4 Conditions to avoid**

Strong Heating. (decomposition)

**10.5 Incompatible materials:**

No information available.

**10.6 Hazardous decomposition products:**

In case of fire: see item 5.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity:****LD/LC50 values relevant for classification:**

<b>7758-98-7 copper sulphate</b>		
Oral	LD <sub>50</sub>	300 mg/kg (rat) (TOXNET)
	LDLO	50 mg/kg (Men) (RTECS)
Dermal	LD <sub>50</sub>	>2000 mg/kg (rat)

**Specific symptoms in biological assay:**

No information available.

**Primary irritant effect:****on the skin:**

Irritant to skin and mucous membranes.

**on the eye:**

No information available.

**after inhalation:**

No information available.

**Sensitisation:**

No sensitising effects known.

**CMR effects:****Germ cell mutagenicity:**

No information available.

**Carcinogenicity:**

No information available.

**Reproductive toxicity:**

No information available.

**Aspiration hazard:**

Not applicable.

**Specific target organ toxicity - single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific target organ toxicity - repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Additional toxicological information:**

We have no description of any toxic symptoms.

**Further information:**

The product should be handled with the care usual when dealing with chemicals.

(Contd. on page 8)



Trade name: EdU Click-488

(Contd. of page 7)

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

<b>Fish toxicity:</b>	
<b>7758-98-7 copper sulphate</b>	
LC <sub>50</sub>	0.11 mg/l/96 h (Onchorhynchus mykiss) (ECOTOX)
<b>Daphnia toxicity:</b>	
<b>7758-98-7 copper sulphate</b>	
EC50	0.02 mg/l/48 h (Daphnia magna) (ECOTOX)

### 12.2 Persistence and degradability

No further relevant information available.

### 12.3 Bioaccumulative potential

No further relevant information available.

### 12.4 Mobility in soil

No further relevant information available.

#### Ecotoxicological effects:

##### Remark:

Do not allow to enter waters, waste water, or soil!

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

### 12.6 Other adverse effects

No further relevant information available.

## SECTION 13: Disposal considerations

### Waste treatment methods

#### Recommendation

This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

#### Uncleaned packaging:

##### Recommendation:

Disposal according to official regulations.

## SECTION 14: Transport information

### 14.1 UN-Number

ADR, IMDG, IATA

UN3077

(Contd. on page 9)



## Safety data sheet

according to 1907/2006/EC, Article 31



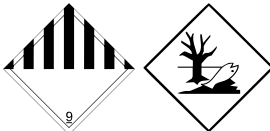
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**Trade name: EdU Click-488**

(Contd. of page 8)

<b>14.2 UN proper shipping name</b>	
<b>ADR</b>	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate)
<b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate), MARINE POLLUTANT
<b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate)
<b>14.3 Transport hazard class(es)</b>	
<b>ADR, IMDG, IATA</b>	
	
<b>Class</b>	9 Miscellaneous dangerous substances and articles.
<b>Label</b>	9
<b>14.4 Packing group</b>	
<b>ADR, IMDG, IATA</b>	III
<b>14.5 Environmental hazards:</b>	
	Product contains environmentally hazardous substances: copper sulphate
<b>Marine pollutant:</b>	Yes
<b>Special marking (ADR):</b>	Symbol (fish and tree)
<b>Special marking (IATA):</b>	Symbol (fish and tree)
<b>14.6 Special precautions for user</b>	
	Warning: Miscellaneous dangerous substances and articles.
<b>Danger code (Kemler):</b>	90
<b>EMS Number:</b>	F-A,S-F
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Limited quantities (LQ)</b>	5 kg
<b>Excepted quantities (EQ)</b>	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
<b>Transport category</b>	3
<b>Tunnel restriction code</b>	E
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	5 kg
<b>Excepted quantities (EQ)</b>	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
<b>UN "Model Regulation":</b>	
	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (copper sulphate), 9, III

(Contd. on page 10)



Trade name: EdU Click-488

(Contd. of page 9)

## SECTION 15: Regulatory information

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

#### National regulations:

**Information about limitation of use:** Employment restrictions concerning juveniles must be observed.

#### Breakdown regulations:

Class	Share in %
III	0.1-<0.3
NK	0.3-<1

#### Waterhazard class:

Water hazard class 2 (Self-assessment): hazardous for water.

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### Relevant phrases

H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H340 May cause genetic defects.  
 H360 May damage fertility or the unborn child.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

R22 Harmful if swallowed.  
 R36/38 Irritating to eyes and skin.  
 R46 May cause heritable genetic damage.  
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 R61 May cause harm to the unborn child.

**Department issuing MSDS:** Department: Health, Safety and Environment

**Contact:** Herr Dr. Hagel

#### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 LD50\*: Lethal Dose, 50 percent (Not relevant for classification)  
 LD50\*: Lethal Concentration, 50 percent (Not relevant for classification)  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Muta. 1B: Germ cell mutagenicity, Hazard Category 1B  
 Repr. 1B: Reproductive toxicity, Hazard Category 1B  
 Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1  
 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

\* Data compared to the previous version altered.