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

1.1 Product identifier

Trade name: Erythrosin B (C.I. 45430) for microscopy
Article number: 0331
CAS Number: 16423-68-0
EC number: 240-474-8

Registration number
A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

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
Acute Tox. 4  H302 Harmful if swallowed.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC
Xn; Harmful
R22:  Harmful if swallowed.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07

Signal word Warning

Hazard statements
H302 Harmful if swallowed.
SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances

CAS No. Description
16423-68-0 disodium 2-(2,4,5,7-tetraiodo-6-oxido-3-oxoxanthen-9-yl) benzoate

Identification number(s)
EC number: 240-474-8
Formula: C₂₀H₂₄IN₂O₅
Molar mass [g/mol]: 879.87

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
Remove any clothing soiled by the product.

After inhalation:
Supply fresh air; if there is any trouble seek medical help.

After skin contact:
Immediately rinse with water.
Seek medical treatment in case of complaints.

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
Cramp

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.
CO2, 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:
Hydrogen iodide (HI)
Iodine
Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid contact with the eyes and skin.
Ensure adequate ventilation
Avoid formation of dust.
Wear personal protective equipment.
Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions
Do not allow to enter sewers/ground water or penetrate the soil.

6.3 Methods and material for containment and cleaning up
Pick up mechanically.
Dispose of the material collected according to regulations.
Dispose contaminated material as waste according to item 13.

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
Keep containers, equipment and working place clean.
Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:
Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
No special requirements.
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: Not required.

Additional information:
The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

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:

Filter P2 (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 rubber, thickness: 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.

**Penetration time of glove material**
Value for the permeation: Level ≥ 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: ≥ 0.11 mm
Value for the permeation: Level ≥ 6

**Eye protection:**
Tightly sealed goggles

**Body protection:**
Protective work clothing

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### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>9.1 Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Solid</td>
</tr>
<tr>
<td>Colour: Red-brown</td>
</tr>
<tr>
<td>Odour: Phenol-like</td>
</tr>
<tr>
<td>Odour threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value (10 g/l) at 20 °C:</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
</tr>
<tr>
<td>Flash point:</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
</tr>
<tr>
<td>Ignition temperature:</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
</tr>
<tr>
<td>Self-igniting:</td>
</tr>
<tr>
<td>Danger of explosion:</td>
</tr>
<tr>
<td>Explosion limits:</td>
</tr>
<tr>
<td>Lower: Not determined.</td>
</tr>
<tr>
<td>Upper: Not determined.</td>
</tr>
<tr>
<td>Oxidizing properties:</td>
</tr>
<tr>
<td>Vapour pressure:</td>
</tr>
<tr>
<td>Density:</td>
</tr>
<tr>
<td>Bulk density at 20 °C:</td>
</tr>
<tr>
<td>Relative density</td>
</tr>
<tr>
<td>Vapour density</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

10.1 Reactivity
The following applies in general to flammable organic substances and preparations: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability
Light-sensitive

Thermal decomposition / conditions to be avoided:
No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions
Strong reaction possible with:
Strong oxidizing agents

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.
Additional information: Hygroscopic

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity:
LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50 (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1840</td>
</tr>
</tbody>
</table>

Primary irritant effect:
on the skin:
Phototoxic

on the eye:
No information available.

after inhalation:
No irritating effect.

Sensitisation:
Sensitization possible in predisposed persons.
CMR effects:
Germ cell mutagenicity:
No information available.
Carcinogenicity:
No information available.
Reproductive toxicity:
No information available.

Aspiration hazard:
No information available.

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:
After absorption:
Spasms

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

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity:

Fish toxicity:
LC₅₀ 500 mg/l/48 h (Oryzias latipes) (ECOTOX)

12.2 Persistence and degradability
No information available.

12.3 Bioaccumulative potential
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected (log POW ≤ 4).

12.4 Mobility in soil
No further relevant information available.

Ecotoxicological effects:
Remark:
Do not allow to enter waters, waste water, or soil!

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.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

**14.1 UN-Number**

ADR, ADN, IMDG, IATA Void

**14.2 UN proper shipping name**

ADR, ADN, IMDG, IATA Void

**14.3 Transport hazard class(es)**

ADR

Class Void

Label -

ADN/R Class: Void

**14.4 Packing group**

ADR, IMDG, IATA Void

**14.5 Environmental hazards:**

Marine pollutant: No

**14.6 Special precautions for user**

Not applicable.

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**Transport/Additional information:**

ADR

Remarks: Not subject to transport regulations.

UN "Model Regulation": -

### 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 pregnant and lactating women must be observed.
Employment restrictions concerning juveniles must be observed.

**Breakdown regulations:**

**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.

Department issuing MSDS: Department: Health, Safety and Environment

Contact: Herr Heine

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
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
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

* Data compared to the previous version altered.

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