

# Safety Data Sheet

#29169958 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

| PRODUCT               | CAS NUMBER | FORMULA | VERSION | REVISION DATE |
|-----------------------|------------|---------|---------|---------------|
| Alizarin (C.I. 58000) | 72-48-0    | C14H8O4 | 10      | 04 Sep 2026   |

## SECTION 1

### Identification

#### 1.1 Product identifier

|                    |                                                         |
|--------------------|---------------------------------------------------------|
| Product name       | Alizarin (C.I. 58000)                                   |
| CAS number         | 72-48-0                                                 |
| EC / EINECS number | 200-782-5                                               |
| Chemical formula   | C14H8O4                                                 |
| Molecular weight   | 240.21                                                  |
| SMILES             | <chem>C1=CC=C2C(=C1)C(=O)C3=C(C2=O)C(=C(C=C3)O)O</chem> |

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

For research use, laboratory use and manufacture of chemicals only. Not for human or veterinary use.

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

Molekula Limited  
1 Millennium Way, Newton Aycliffe  
Durham, DL5 6JW, United Kingdom  
info@molekula.com · +44 (0) 3302 000333

#### 1.4 Emergency telephone number

**0344 892 0111** — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

## SECTION 2

### Hazard identification

#### 2.1 Classification of the substance or mixture

Acute Tox. 4; H302  
Skin Sens. 1; H317  
Eye Dam. 1; H318  
Aquatic Chronic 1; H410

## 2.2 Label elements



**DANGER**

| CODE | HAZARD STATEMENT |
|------|------------------|
|------|------------------|

|      |                      |
|------|----------------------|
| H302 | Harmful if swallowed |
|------|----------------------|

|      |                                     |
|------|-------------------------------------|
| H317 | May cause an allergic skin reaction |
|------|-------------------------------------|

|      |                           |
|------|---------------------------|
| H318 | Causes serious eye damage |
|------|---------------------------|

|      |                                                      |
|------|------------------------------------------------------|
| H410 | Very toxic to aquatic life with long lasting effects |
|------|------------------------------------------------------|

| CODE | PRECAUTIONARY STATEMENT |
|------|-------------------------|
|------|-------------------------|

|      |                                                  |
|------|--------------------------------------------------|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray |
|------|--------------------------------------------------|

|      |                                  |
|------|----------------------------------|
| P273 | Avoid release to the environment |
|------|----------------------------------|

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
|------|---------------------------------------------------------------------------|

|                |                                                   |
|----------------|---------------------------------------------------|
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting |
|----------------|---------------------------------------------------|

|           |                                      |
|-----------|--------------------------------------|
| P302+P352 | IF ON SKIN: Wash with soap and water |
|-----------|--------------------------------------|

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

## 2.3 Other hazards

Does not contain components considered to have endocrine-disrupting properties. Does not meet PBT or vPvB criteria under REACH Annex XIII.

## SECTION 3

### Composition / information on ingredients

#### 3.1 Substances

|                                                          |                                                                                         |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Name                                                     | Alizarin (C.I. 58000)                                                                   |
| CAS number                                               | 72-48-0                                                                                 |
| EC number                                                | 200-782-5                                                                               |
| Concentration / purity                                   | c. 100% Alizarin (C.I. 58000) (CAS: 72-48-0)- H302, H317, H318, H410                    |
| Classification according to Regulation (EC) No 1272/2008 | Acute Tox. 4; H302<br>Skin Sens. 1; H317<br>Eye Dam. 1; H318<br>Aquatic Chronic 1; H410 |
| Hazard statements                                        | H302, H317, H318, H410                                                                  |
| Acute toxicity estimate (ATE)                            | No data available                                                                       |
| Impurities / stabilising additives                       | None                                                                                    |

## SECTION 4

### First-aid measures

#### 4.1 Description of first aid measures

|                     |                                                                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Remove person to fresh air and keep comfortable for breathing. In case of persistent throat irritation or coughing: seek medical attention.                        |
| <b>Skin contact</b> | Wash with plenty of water. Continue to rinse for at least 15 minutes and seek medical attention.                                                                   |
| <b>Eye contact</b>  | Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.                        |
| <b>Ingestion</b>    | After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise. |

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

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

See Section 11

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

*No data available*

## SECTION 5

### Fire-fighting measures

#### 5.1 Extinguishing media

|                                       |                                                                              |
|---------------------------------------|------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>   | For this substance/mixture no limitations of extinguishing agents are given. |
| <b>Unsuitable extinguishing media</b> | None known                                                                   |

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

Nature of decomposition products not known.

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire

#### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6

### Accidental release measures

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

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

## 6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

## 6.3 Methods and material for containment and cleaning up

Absorb spillage with a suitable absorbent material.

## 6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

## SECTION 7

### Handling & storage

#### 7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use.

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

**Storage temperature** Ambient

**Conditions for safe storage (incompatibilities)** Store at ambient temperature. Store in a dry place. Store in a closed container.

#### 7.3 Specific end use(s)

See Section 1.2.

## SECTION 8

### Exposure controls / personal protection

#### 8.1 Control parameters

**Occupational exposure limits (OEL / WEL)** Not applicable

**DNEC/PNEC data** Not applicable

#### 8.2 Exposure controls

**Eye / face protection** Safety glasses  
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

**Skin / hand protection** Protective gloves.

**Respiratory protection** Dust mask (FFP2/FFP3)  
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

**Other protection** No data available

**Environmental exposure controls** No data available

## SECTION 9

**Physical & chemical properties****9.1 Information on basic physical and chemical properties**

|                                                          |                                             |
|----------------------------------------------------------|---------------------------------------------|
| <b>Appearance / physical state</b>                       | Solid<br>DERIVED FROM: LITERATURE           |
| <b>Colour</b>                                            | Yellow to amber<br>DERIVED FROM: LITERATURE |
| <b>Odour</b>                                             | Odourless<br>DERIVED FROM: LITERATURE       |
| <b>Melting / freezing point</b>                          | 279-290°C<br>DERIVED FROM: LITERATURE       |
| <b>Boiling point</b>                                     | 430°C<br>DERIVED FROM: LITERATURE           |
| <b>Flammability</b>                                      | No data available                           |
| <b>Lower and upper explosion limit</b>                   | No data available                           |
| <b>Flash point</b>                                       | Not applicable                              |
| <b>Auto-ignition temperature</b>                         | Not applicable                              |
| <b>Decomposition temperature</b>                         | No data available                           |
| <b>pH</b>                                                | Not applicable                              |
| <b>Acidity</b>                                           | Acid<br>DERIVED FROM: LITERATURE            |
| <b>Kinematic viscosity</b>                               | No data available                           |
| <b>Solubility</b>                                        | No data available                           |
| <b>Partition coefficient n-octanol/water (log value)</b> | Not applicable                              |
| <b>Vapour pressure</b>                                   | Not applicable                              |
| <b>Density (g/mL)</b>                                    | 1.575 g/mL<br>DERIVED FROM: LITERATURE      |
| <b>Relative vapour density</b>                           | No data available                           |
| <b>Particle characteristics</b>                          | No data available                           |

**9.2 Other information***No data available*

## SECTION 10

**Stability & reactivity****10.1 Reactivity***No data available***10.2 Chemical stability**

Stable under the prescribed storage conditions

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidising agents. Strong bases (alkalis)

### 10.6 Hazardous decomposition products

See section 5

## SECTION 11

### Toxicological information

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

**Acute toxicity (LD50 / LC50)** Information on hazard classes as defined in Regulation (EC) No 1272/2008.  
Acute Toxicity Estimate (ATE): LD50 > 300 mg/kg < 2000 mg/kg

**Skin corrosion / irritation** Not classified

**Eye corrosion / irritation** Causes serious eye damage

**Respiratory / skin sensitisation** May cause an allergic skin reaction

**Carcinogenicity** Not classified

**Mutagenicity** Not classified

**Reproductive toxicity** Not classified

**STOT (single / repeated exposure)** Not classified

**Aspiration hazard** Not classified

#### 11.2 Information on other hazards

Not classified

## SECTION 12

### Ecological information

#### 12.1 Toxicity

Ref: External SDS

LC50 - Oryzias latipes - 1.1 mg/l - 48 h

semi-static test EC50 - Daphnia magna (Water flea) - 1.58 mg/l - 48 h

#### 12.2 Persistence and degradability

Not readily biodegradable

### 12.3 Bioaccumulative potential

*Not applicable*

### 12.4 Mobility in soil

*Not applicable*

### 12.5 Results of PBT and vPvB assessment

*Not applicable*

### 12.6 Endocrine disrupting properties

*See Section 11.2.*

### 12.7 Other adverse effects

*No data available*

## SECTION 13

### Disposal considerations

#### 13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

## SECTION 14

### Transport information

#### 14.1 UN number or ID number

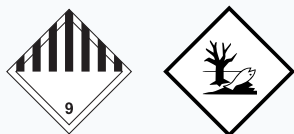
UN3077

#### 14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

#### 14.3 Transport hazard class(es)

9



#### 14.4 Packing group

III

#### 14.5 Environmental hazards

Marine pollutant

#### 14.6 Special precautions for user

|                              |                                                                       |
|------------------------------|-----------------------------------------------------------------------|
| Special precautions for user | Handle in accordance with good industrial hygiene and safety practice |
| Transport category           | 3                                                                     |
| Tunnel code                  | -                                                                     |
| Packing instruction (ADR)    | P002                                                                  |
| Packing instruction (IMDG)   | P002                                                                  |

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

*No data available*

### SECTION 15

#### Regulatory information

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

|                                                |                          |
|------------------------------------------------|--------------------------|
| Substance-specific regulations (e.g. licences) | <i>No data available</i> |
| REACH code                                     | Y110                     |
| ECHA notification                              | <i>Not applicable</i>    |

##### 15.2 Chemical safety assessment

*Not applicable*

### SECTION 16

#### Other information

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Revision notes / other information | <p>Previous SDS ver. 1 published 15th July 2019</p> <p>Hazard classification and labelling according to Regulation (EC) 1272/2008</p> <p>All eye/face protection should comply with EN ISO 16321-1:2022</p> <p>Respiratory equipment: Reusable air-purifying respirator (APR)</p> <p>Filter Type: ABEK</p> <p>Standard: EN 14387</p> <p>National Regulations:</p> <p>-Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances</p> <p>Other regulations, limitations and legal regulations:</p> <p>-Directive 94/33/EC- The protection of young people at work</p> |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at [info@molekula.com](mailto:info@molekula.com).