

# SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended



Date of issue: 20.09.2023

Version: 1.0/EN

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

### 1.1 Product identifier

Trade name: **ADOSTOP ECO P**  
Chemical name: citric acid monohydrate  
CAS number: 5949-29-1  
Index number: -  
REACH number: 01-2119457026-42-XXXX

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

Relevant identified uses: developer stop solution. For industrial use only.  
Uses advised against: not determined.

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

Supplier: **Adox Fotowerke GmbH**  
Address: Pieskower Str. 30A, 15526 Bad Saarow, Germany  
Telephone/fax: +49 (0)33631 6459-0/+49 (0)33631 6459-190  
E-mail address for a competent person responsible for SDS: info@adox.de

### 1.4 Emergency telephone number

112

## Section 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Eye Irrit. 2 H319, STOT SE 3 H335**

Causes serious eye irritation. May cause respiratory irritation.

### 2.2 Label elements

Hazard pictograms and signal words



**WARNING**

Hazard statements

H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/ eye protection/face protection.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTRE/doctor if you feel unwell.  
P501 Dispose of contents/container to properly labeled waste containers in accordance with national regulations.

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## 2.3 Other hazards

The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.  
The substance is not identified as having endocrine disrupting properties.

## Section 3: Composition/information on ingredients

### 3.1 Substances

CAS number: 5949-29-1 EC number: 201-069-1 Index number: - REACH number: 01-2119457026-42-XXXX	citric acid monohydrate Eye Irrit. 2 H319, STOT SE 3 H335	≤ 100 %
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Full text of each relevant H phrase is given in section 16 of SDS.

## Section 4: First aid measures

### 4.1 Description of first aid measures

Skin contact: consult a doctor if disturbing symptoms appear. Take off contaminated clothing. Wash the contaminated skin thoroughly with plenty of water.

Eye contact: protect non-irritated eye, remove contact lenses. Rinse contaminated eyes thoroughly with water for 15 minutes. Avoid powerful water stream – risk of cornea damage. Consult a ophthalmologist if disturbing symptoms appear.

Ingestion: consult a doctor if disturbing symptoms appear. Rinse mouth with water, give plenty of water to drink. Never give anything by mouth to an unconscious person.

Inhalation: consult a doctor if disturbing symptoms appear. Move the victim to fresh air. Keep victim warm and calm.

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

Skin contact: possible redness, burning sensation.

Eye contact: possible redness, tearing, burning sensation, irritation.

Ingestion: possible stomach pain, nausea, vomiting.

Inhalation: high concentration of dust may cause respiratory tract irritation.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

## Section 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry chemicals, water spray.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

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

During the fire, the product may produce toxic fumes of carbon oxides or other unidentified thermal decomposition products. Do not inhale combustion products, they can be dangerous for human health.

### 5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Cool the endangered containers with water spray from a safe distance. Do not allow the extinguishing water to enter drains, surface water or groundwater. Collect used extinguishing media.

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## Section 6: Accidental release measures

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

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that only the trained personnel removes the effects of the accident. In case of large release, isolate the exposed area. Use personal protective measures. Avoid skin and eyes contamination. Avoid dust formation and inhalation. Ensure adequate ventilation.

### 6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

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

Collect the released product mechanically, avoiding dusting. Place collected material in properly labelled containers for disposal. Clean and ventilate contaminated place.

### 6.4 Reference to other sections

Personal protective equipment – see section 8. Appropriate conduct with waste product – see section 13.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when working. Before break and after work wash hands carefully. Avoid contact with the eyes and skin. Avoid dust formation and inhalation. Use personal protective equipment. Keep the unused containers tightly closed. Use as intended. Ensure adequate general and/or local ventilation.

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

Keep only in properly labeled, tightly closed containers in a cool and well-ventilated area. Do not store with food, feed for animals or incompatible materials (see section 10.5). Keep the unused containers tightly closed. Avoid direct exposure to sunlight.

### 7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

No occupational exposure limit values were established for the substance.

Legal Basis: Commission Directive 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU.

Please check any national occupational exposure limit values in your country.

### 8.2 Exposure controls

#### Appropriate engineering controls

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Before break and after work wash hands carefully. Remove contaminated clothing and wash before reuse. Use personal protective equipment. Avoid eye and skin contamination. Avoid dust formation and inhalation. Ensure adequate general and/or local ventilation.

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## Individual protection measures, such as personal protective equipment

The necessity to use and the selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

## Hand and body protection

Use protective gloves according to EN 374 standard. Recommended glove material: nitrile rubber (thickness: min. 0,11 mm). In case of a short contact, use protective gloves with level of effectiveness: 2 or higher (breakthrough time > 30 min.). In case of a long contact, use protective gloves with level of effectiveness: 6 (breakthrough time > 480 min.) The material for gloves should be selected individually at the workplace. Use protective clothing.

When using protective gloves during work with chemical products, it should be noted that the efficacy levels and corresponding breakthrough times do not indicate actual times of protection at a particular workplace, because the protection can be affected by many factors, e.g. temperature, other substances etc. If there are any signs of degradation, damage or change in appearance (colour, flexibility, shape), it is recommended to replace the gloves with a new pair. Please follow the manufacturer's instructions, not only in terms of gloves' usage, but also in terms of their cleaning, maintenance and storage. It is also important to know how to take off the gloves in order to avoid hands contamination.

## Eyes protection

Use tightly fitting glasses according to EN 166.

## Respiratory protection

Under normal and intended conditions of use the respiratory protection is not required. In case of a high concentration of product dust in the air or in an accident, use appropriate respiratory protection according to EN 143. Recommended filter type: P2.

## Thermal hazards

Do not occur

## Environmental exposure controls

Do not allow large quantities of the product to contaminate ground water, drains, sewages or soil. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	solid
Colour:	orange
Odour:	odourless
Melting point/freezing point:	135 – 152 °C
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	the product is not classified in the flammability
Lower and upper explosion limit:	not determined
Flash point:	173,9 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	> 170 °C
pH:	1,85 (50 g/l at 25 °C)
Kinematic viscosity:	not determined
Solubility:	soluble in water (ca. 880 g/l at 20 °C)
Partition coefficient n-octanol/water (log value):	-1,72 at 20 °C (anhydrous substance)
Vapour pressure:	< 0,01 hPa at 25 °C (anhydrous substance)

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Density and/or relative density:	1,54 g/cm <sup>3</sup> (20 °C)
Relative vapour density:	not determined
Particle characteristics:	not determined

## 9.2 Other information

There are no additional test results.

## Section 10: Stability and reactivity

### 10.1 Reactivity

Product is reactive. Forms explosive mixtures with air on intense heating. Product does not undergo a dangerous polymerization. See also subsections 10.3-10.5.

### 10.2 Chemical stability

The product is stable under normal conditions of use and storage.

### 10.3 Possibility of hazardous reactions

Violent reactions possible with metals, oxidizing agents, bases, reducing agents.

### 10.4 Conditions to avoid

Avoid heat sources and direct exposure to sunlight.

### 10.5 Incompatible materials

Strong oxidizing agents, metals.

### 10.6 Hazardous decomposition products

Not known.

## Section 11: Toxicological information

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

#### Acute toxicity

LD <sub>50</sub> (oral, mouse)	5.400 mg/kg (OECD 401, anhydrous substance)
LD <sub>50</sub> (oral, rat)	11.700 mg/kg (OECD 401, anhydrous substance)
LD <sub>50</sub> (dermal, rat)	> 2.000 mg/kg (OECD 402)

Based on available data, the classification criteria are not met.

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Carcinogenicity

Based on available data, the classification criteria are not met.

#### Reproductive toxicity

Based on available data, the classification criteria are not met.

#### STOT-single exposure

May cause respiratory irritation.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

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## Aspiration hazard

Based on available data, the classification criteria are not met.

## Information on likely routes of exposure

Routes of exposure: eye contact, skin contact, inhalation, ingestion. For more information on the impact of each possible route of exposure, see subsection 4.2.

## Symptoms related to the physical, chemical and toxicological characteristics

See subsection 4.2.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

See subsection 4.2

## 11.2 Information on other hazards

### Endocrine disrupting properties

The substance is not identified as having endocrine disrupting properties.

### Other information

Not known.

## Section 12: Ecological information

### 12.1 Toxicity

Toxicity to fish:	LC <sub>50</sub>	440 - 760 mg/l/96 h/ <i>Leuciscus idus</i> (anhydrous substance)
Toxicity to daphnia:	EC <sub>50</sub>	485 mg/l/72 h/ <i>E.sulcatum</i> (anhydrous substance)
Toxicity to daphnia:	EC <sub>50</sub>	ca. 120 mg/l/72 h/ <i>Daphnia magna</i> (anhydrous substance)
Toxicity to algae:	IC <sub>50</sub>	80 mg/l/8 days/ - <i>M.aeruginosa</i> (anhydrous substance)
Toxicity to bacteria:	EC <sub>50</sub>	> 10.000 mg/l/16 h/ <i>Pseudomonas putida</i> (anhydrous substance)

The product is not classified as hazardous to the aquatic environment. The substance may be harmful to the aquatic environment due to pH change.

### 12.2 Persistence and degradability

Biodegradability: 98 % (OECD 302B, anhydrous substance).

### 12.3 Bioaccumulative potential

No data.

### 12.4 Mobility in soil

Mobility of the substance depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

### 12.5 Results of PBT and vPvB assessment

The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

### 12.6 Endocrine disrupting properties

The substance is not identified as having endocrine disrupting properties.

### 12.7 Other adverse effects

The substance has no influence on global warming and destruction of the ozone layer.

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

Disposal methods for the substance: disposal in accordance with the local legislation. Do not let product to enter sewage system. Store residues in original containers. Waste code should be given in the place of waste formation.

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Disposal methods for used packing: reuse/recycle/liquidate empty containers in accordance with the legislation in force. Only containers completely empty can be recycled. Waste code should be given in the place of waste formation.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

## Section 14: Transport information

### 14.1 UN number or ID number

Not applicable. Product is not classified as dangerous during transportation.

### 14.2 UN proper shipping name

Not applicable.

### 14.3 Transport hazard class(es)

Not applicable.

### 14.4 Packing group

Not applicable.

### 14.5 Environmental hazards

Not applicable.

### 14.6 Special precautions for user

Not applicable.

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

Not applicable.

## Section 15: Regulatory information

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

**Regulation (EC) No 1907/2006** of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

**ADR** Agreement Concerning the International Carriage of Dangerous Goods by Road.

**IMDG Code** International Maritime Dangerous Goods Code.

**IATA** The International Air Transport Association regulations.

**Regulation (EC) No 1272/2008** of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance) **as amended**.

**Commission Regulation (EU) No 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

**Directive 2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives **as amended**.

**European Parliament and Council Directive 94/62/EC** of 20 December 1994 on packaging and packaging waste **as amended**.

**Regulation (EU) 2016/425** of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Text with EEA relevance).

**Commission Directive 2000/39/EC** of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Commission Directive 2006/15/EC** of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

**Commission Directive 2009/161/EU** of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

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**Commission Directive 2017/164/EU** of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

**Commission Directive 2019/1831/EU** of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

## 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out.

### Section 16: Other information

#### Full text of indicated H phrases mentioned in section 3

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

#### Clarification of aberrations and acronyms

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	Very Persistent, very Bioaccumulative substance.
Eye Irrit. 2	Eye irritation category 2
STOT SE 3	Specific target organ toxicity — single exposure, category 3

#### Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

#### Key literature references and sources of data

This SDS was prepared on the basis of safety data sheet delivered by manufacturer, literature data, online databases (eg. ECHA, TOXNET, COSING) as well as our knowledge and experience, taking into account current legislation.

#### Other data

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Safety Data Sheet made by:	<b>THETA Consulting Sp. z o. o.</b> (based on manufacturer's data)

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.