

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

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

· **1.1 Product identifier**

· **Product name:** CYA HR TEST

· **Catalog number:** 00511431, 00511439BT, 511430BT, 511431BT

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

· **Application of the substance / the preparation:** Reagent for water analysis

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Tintometer GmbH
Schleefstraße 8-12
44287 Dortmund
Made in Germany
www.lovibond.com

phone: +49 (0)231 94510-0
e-mail: sales@lovibond.com

The Tintometer Limited
Lovibond® House
Sun Rise Way
Amesbury
Wiltshire SP4 7GR
United Kingdom

phone : +44 1980 664800
e-mail: SDS@lovibond.uk

· **Informing department:**

e-mail: sds@lovibond.com
Product Safety Department

· **1.4 Emergency telephone number:**

+44 1235 239670
Languages: English

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

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

· **Hazard pictograms**



GHS07



GHS08

· **Signal word** Warning

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: CYA HR TEST

(Contd. of page 1)

Hazard-determining components of labelling:

melamine

Hazard statements

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection.

P201 Obtain special instructions before use.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

2.3 Other hazards No further relevant information available.**Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

Determination of endocrine-disrupting properties

The product does not contain substances with endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of organic and inorganic compounds

Dangerous components:

CAS: 77-92-9 EINECS: 201-069-1 Index No: 607-750-00-3 Reg.nr.: 01-2119457026-42-XXXX	citric acid	! Eye Irrit. 2, H319; STOT SE 3, H335	10-<20%
CAS: 108-78-1 EINECS: 203-615-4 Index No: 613-345-00-2	melamine	⚠ Carc. 2, H351; STOT RE 2, H373	2.5-5%

SVHC

CAS: 108-78-1 | melamine

Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Instantly remove any clothing soiled by the product.

After inhalation Supply fresh air; consult doctor in case of symptoms.

After skin contact Instantly wash with water and soap and rinse thoroughly.

After eye contact Rinse opened eye for several minutes (at least 15 min) under running water. Then consult doctor.

After swallowing

Rinse out mouth and then drink 1-2 glasses of water.

Consult a doctor.

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

irritations

after inhalation:

mucosal irritations, cough, shortness of breath

after swallowing:

thirst

sickness

vomiting

gastric or intestinal trouble

4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

GB

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: **CYA HR TEST**

(Contd. of page 2)

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**
 The product is in tablet form not flammable.
 mixture with combustible ingredients
 Formation of toxic gases is possible during heating or in case of fire.
 Can be released in case of fire:
 nitrous gases
 Ammonia (NH₃)
 hydrogen cyanide (prussic acid HCN)
 Nitrogen oxides (NO_x)
 Sulphur oxides (SO_x)
 Phosphorus oxides (PxO_x)
 Dipotassium oxide
 Sodium oxide
- **5.3 Advice for firefighters**
- **Protective equipment:**
 Wear self-contained breathing apparatus.
 Wear full protective suit.
- **Additional information**
 Collect contaminated fire fighting water separately. It must not enter drains.
 Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
 Ambient fire may liberate hazardous vapours.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:**
 Wear protective equipment. Keep unprotected persons away.
 Avoid substance contact.
 Ensure adequate ventilation
- **Advice for emergency responders:** Protective equipment: see section 8
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- **6.3 Methods and material for containment and cleaning up:**
 Ensure adequate ventilation.
 Collect mechanically.
 Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
 See Section 8 for information on personal protection equipment.
 See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- **Advice on safe handling:** No special precautions necessary if used correctly.
- **Hygiene measures:**
 Do not get in eyes, on skin, or on clothing.
 Take off immediately all contaminated clothing.
 Store protective clothing separately.
 Wash hands during breaks and at the end of the work.
 Do not eat, drink or smoke when using this product.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
 Store in a locked cabinet or with access restricted to technical experts or their assistants.
 Protect from heat and direct sunlight.
 Protect from the effects of light.
 Store under dry conditions.
 Protect from humidity and keep away from water.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: CYA HR TEST

(Contd. of page 3)

- **Recommended storage temperature:** 20°C +/- 5°C
 - **7.3 Specific end use(s)** No further relevant information available.
-

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
 - **Components 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.
 - **Recommended monitoring procedures:**
Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.
 - **Additional information:** The lists that were valid during the compilation were used as basis.
 - **8.2 Exposure controls**
 - **Engineering measures:**
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.
 - **Individual protection measures, such as personal protective equipment**
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
 - **Eye/face protection**
Safety glasses
Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.
 - **Hand protection**
Protective gloves.
Preventive skin protection by use of skin-protecting agents is recommended.
After use of gloves apply skin-cleaning agents and skin cosmetics.
 - **Material of gloves**
nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
 - **Penetration time of glove material**
Value for the permeation: Level = 1 (< 10 min)
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Other skin protection (body protection):** Protective work clothing.
 - **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
 - **Recommended filter device for short term use:** Filter P3
 - **Environmental exposure controls** Do not allow product to reach sewage system or water bodies.
-

SECTION 9: Physical and chemical properties

- | 9.1 Information on basic physical and chemical properties | |
|---|--------------------------------------|
| · Physical state | Solid. |
| · Form: | Tablets |
| · Colour: | White |
| · Odour: | Odourless |
| · Odour threshold: | Not applicable. |
| · Melting point/Freezing point: | Not determined. |
| · Boiling point or initial boiling point and boiling range | Not applicable. |
| · Flammability | mixture with combustible ingredients |
| · Explosive properties: | Product is not explosive. |
| · Lower and upper explosion limit | |
| Lower: | Not applicable. |
| Upper: | Not applicable. |
| · Flash point: | Not determined. |
| · Auto-ignition temperature: | Not applicable (solid). |
| · Decomposition temperature: | Not determined. |
| · pH at 20°C | 6.26 |
| · Kinematic viscosity | Not applicable (solid). |

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: CYA HR TEST

(Contd. of page 4)

· Solubility	
· Water:	Soluble
· Partition coefficient n-octanol/water (log value)	Not applicable (mixture).
· Vapour pressure:	Not applicable (solid).
· Density and/or relative density	
· Density at 20°C:	~1.77 g/cm ³
· Relative density:	Not determined.
· Relative gas density	Not applicable (solid).
· Particle characteristics	Not determined.
· 9.2 Other information	
· Information with regard to physical hazard classes	
· Corrosive to metals	Void
· Other safety characteristics	
· Oxidising properties:	none
· Additional information	
· Solids content:	100 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see section 10.3
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**
Aqueous solution reacts with metals.
Reacts with acids, alkalis and oxidizing agents
Reacts with reducing agents
--> forms heat
Citric acid: Incompatible with bases, strong oxidising agents, amines. Contact with metal nitrates causes explosion hazard.
Attacks aluminium, copper, zinc and their alloys - in case of moisture.
Reacts with ammonia (NH₃).
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:**
metals
aluminium, copper, zinc, metal ions
- **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** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

CAS: 77-92-9 citric acid		
Oral	LD50	3000 mg/kg (rat) (IUCLID)
Dermal	LD50.	>2000 mg/kg (rat) (limit test: there were no deaths)
CAS: 108-78-1 melamine		
Oral	LD50	3161 mg/kg (rat) (Registrant, ECHA)
Dermal	LD50.	>1000 mg/kg (rabbit) (Registrant, ECHA)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Information on components:**
Citric acid: A single drop of a 2% or 5% solution in water causes little or no irritation.
A 0.5% solution held in contact with the eye causes irreversible tissue damage to the cornea.
Citric Acid caused mild irritation when 500 mg was tested on rabbit skin in a 24-hour test.
(CHEMINFO, Canadian Centre for Occupational Health and Safety)

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: CYA HR TEST

(Contd. of page 5)

CAS: 77-92-9 citric acid

Irritation of skin	OECD 404	(rabbit: no irritation)
Irritation of eyes	OECD 492	(rabbit: severe irritations)

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **Information on components:**

CAS: 77-92-9 citric acid

Sensitisation	OECD 406	(guinea pig: negative) (EPA OPP 81-6: Guinea pig maximisation test)
---------------	----------	---

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Suspected of causing cancer.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **Information on components:**

OECD 414: Teratogenicity testing

OECD 473: Mutagenicity testing

OECD 471, 474, 476, 487: Germ cell mutagenicity testing

CAS: 77-92-9 citric acid

OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test)
----------	--

· **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

· **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **Information on likely routes of exposure**

Under workplace conditions, inhalative exposure is the main route of exposure of citric acid. Inhalative exposure is possible in the form of dust or aerosols of aqueous solutions, although the warning irritant effect means that inhalation of very high concentrations is only to be expected accidentally.

Irrespective of this, citric acid is mainly ingested orally with food. [GESTIS]

The main intake route for melamine in work areas is via the respiratory tract. Due to the extremely low vapor pressure and the low solubility in water, under industrial conditions exposure is relevant neither to vapors nor liquid aerosols, but only to dust. [GESTIS]

· **Additional toxicological information:**

CAS: 77-92-9 citric acid

·	(source: GESTIS) Main toxic effects: Acute: Irritant effect on the eyes and upper respiratory tract; no evidence of systemic toxic effects under occupationally relevant exposure conditions chronic: irritative effects on mucous membranes and skin. Enamel damage, dermatitis (Merck)
	Further information: Depending on the pH value, dust or concentrated aqueous solutions are highly irritating to corrosive to the eye.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

· **Other information**

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 77-92-9 citric acid

EC50	~120 mg/l (Daphnia magna) (72 h) (IUCLID)
EC5	485 mg/l (Entosiphon sulcatum) (72h) (MERCK)
LC50	440–760 mg/l/96h (gold orfe) (IUCLID)

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: **CYA HR TEST**

(Contd. of page 6)

CAS: 108-78-1 melamine	
LC50	>500 mg/l/48h (gold orfe)
· Bacterial toxicity:	
CAS: 77-92-9 citric acid	
EC5	>10000 mg/l (Pseudomonas putida) (16h (Lit.))
· 12.2 Persistence and degradability	
CAS: 77-92-9 citric acid	
OECD 301 B	97 % / 28 d (readily biodegradable) (CO2 Evolution Test)
OECD 302 B	98 % / 2 d (readily eliminated from water) (Zahn-Wellens / EMPA Test)
· 12.3 Bioaccumulative potential	
Pow = n-octanol/wasser partition coefficient	
log Pow < 1 = Does not accumulate in organisms.	
CAS: 77-92-9 citric acid	
log Pow	-1.72 (.) (OECD 117, 20°C)
· 12.4 Mobility in soil No further relevant information available.	
· 12.5 Results of PBT and vPvB assessment	
This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.	
· 12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.	
· 12.7 Other adverse effects	
Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of water supplies. Avoid transfer into the environment.	
· Water hazard:	
Do not allow product to reach ground water, water bodies or sewage system.	
Danger to drinking water if even small quantities leak into soil.	

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods	
· Recommendation	
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to disposers of hazardous waste.	
· European waste catalogue	
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
· Uncleaned packagings:	
· Recommendation: Disposal must be made according to official regulations.	
· Recommended cleaning agent: Water, if necessary with cleaning agent.	

SECTION 14: Transport information

· 14.1 UN number or ID number	Void
· ADR, IMDG, IATA	Void
· 14.2 UN proper shipping name	Void
· ADR, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	Void
· ADR, IMDG, IATA	Void
· Class	Void
· 14.4 Packing group	Void
· ADR, IMDG, IATA	Void
· 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.

(Contd. on page 8)

— GB —

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: **CYA HR TEST**

(Contd. of page 7)

Transport/Additional information:	Not dangerous according to the above specifications.
--	--

* SECTION 15: Regulatory information

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

- **Poisons Act UK**

- **Regulated explosives precursors**

None of the ingredients is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

None of the ingredients is listed.

- **Regulation (EU) 2019/1148 on the marketing and use of explosives precursors** not regulated

- **Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)**

None of the ingredients is listed.

- **Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:**

None of the ingredients is listed.

- **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

- **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

None of the ingredients is listed.

- **REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)**

None of the ingredients is listed.

- **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**

None of the ingredients is listed.

- **Substances of very high concern (SVHC) according to REACH, Article 57** see item 3 SVHC

- **Substances of very high concern (SVHC) according to UK REACH**

This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).

- **Directive 2012/18/EU (SEVESO III):**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Information about limitation of use:**

Employment restrictions concerning young persons must be observed (94/33/EC).

Employment restrictions concerning pregnant and lactating women must be observed (92/85/EEC).

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

- **Training hints** Provide adequate information, instruction and training for operators.

- **Relevant phrases**

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.11.2023

Version number 5 (replaces version 4)

Revision: 16.11.2023

Product name: CYA HR TEST

(Contd. of page 8)

H373 May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:

OECD: Organisation for Economic Co-operation and Development

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure

EC50: half maximal effective concentration

IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Sources

Data arise from safety data sheets, reference works and literature.

ECHA: European CHemicals Agency <http://echa.europa.eu>

GESTIS- Stoffdatenbank (Substance Database, Germany)

IUCLID (International Uniform Chemical Information Database)

RTECS (Registry of Toxic Effects of Chemical Substances)

*** Data compared to the previous version altered.**

GB