

according to 29 CFR 1910.1200(g)

Red dye

Revision date: 02/29/2024 Product code: CY-LK-R2-1 Page 1 of 9

1. Identification

Product identifier

Red dve

Further trade names

CY-LK-R1-1, CY-LK-X

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

laboratory reagent. Research and Development.

Uses advised against

Any non-intended use.

Details of the supplier of the safety data sheet

Company name: Dynamic Biosensors GmbH Street: Perchtinger Str. 8/10 Place: D-81379 München Telephone: +49-89-8974544-0

Emergency phone number: CONTACT (24-Hour-Number): GBK GmbH 01149-6132-84463

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

This mixture is not classified as hazardous in accordance with Regulation 29 CFR 1910.1200(d).

Label elements

Additional advice on labelling

Label elements GHS: None

Hazards not otherwise classified

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

3. Composition/information on ingredients

<u>Mixtures</u>

Chemical characterization

The product does not contain dangerous substances to be mentioned in section 3.

Relevant ingredients

none (according to 29 CFR 1910.1200(g))

4. First-aid measures

Description of first aid measures

General information

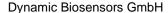
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.





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After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

Most important symptoms and effects, both acute and delayed

See sections 2 and 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2). Dry extinguishing powder. Alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

Can be released in case of fire: Carbon monoxide (CO)., Carbon dioxide (CO2).

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Co-ordinate fire-fighting measures to the fire surroundings.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

See protective measures under point 7 and 8.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special measures are necessary.

Environmental precautions

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling





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Advice on safe handling

Wear suitable protective clothing. (See section 8.)

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Further information on handling

General protection and hygiene measures: refer to section 8

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

Recommended storage temperature: 20 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). Standards: EN ISO 16321-1 or 29 CFR 1910.133

Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of the glove material 0,4 mm

Breakthrough time >= 8 h

Butyl rubber. - Thickness of the glove material 0,5 mm

Breakthrough time >= 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of the glove material 0,5 mm

Breakthrough time >= 8 h

NBR (Nitrile rubber). - Thickness of the glove material 0,35 mm

Breakthrough time >= 8 h

PVC (Polyvinyl chloride). - Thickness of the glove material 0,5 mm

Breakthrough time >= 8 h

The selected protective gloves should satisfy the specifications of standards like EN 374.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them



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before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at: Exceeding exposure limit values

Suitable respiratory protective equipment: half-mask with filter EN 149 or 29 CFR 1910.134.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

No special precautionary measures are necessary.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: liquid

Color: No data available
Odor: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

not determined
not determined

boiling range:

Lower explosion limits: not determined not determined Upper explosion limits: Flash point: not determined Auto-ignition temperature: not determined Decomposition temperature: not determined pH-Value: 8.3 Viscosity / kinematic: not determined Water solubility: not determined

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapor pressure:

Density:

Relative vapour density:

SECTION 12: Ecological information not determined not determined not determined not determined

Other information

Information with regard to physical hazard classes

Explosive properties

none

Sustaining combustion: Not sustaining combustion

Self-ignition temperature

Gas: not determined

Oxidizing properties

none

Other safety characteristics

Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: not determined
Solid content: not determined
Sublimation point: not determined

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Softening point:

Pour point:

Viscosity / dynamic:

not determined

not determined

not determined

not determined

not determined

10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stability: Stable

The product is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

Refer to section 10.5.

Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

Hazardous decomposition products

Can be released in case of fire: Carbon monoxide, Carbon dioxide (CO2).

11. Toxicological information

Route(s) of Entry

Ingestion: May be harmful if swallowed. Inhalation: May be harmful if inhaled. Skin contact: May cause irritation. Eye contact: May cause irritation.

Information on toxicological effects

Acute toxicity

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

ATEmix calculated

ATE (oral) 1524922 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

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

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.
Carcinogenicity (IARC): No ingredient of this mixture is listed.
Carcinogenicity (NTP): No ingredient of this mixture is listed.

Aspiration hazard

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



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Specific effects in experiment on an animal

No data available.

Information on other hazards

Endocrine disrupting properties

No data available.

12. Ecological information

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

No indication of bioaccumulation potential.

Mobility in soil

No data available.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

14. Transport information

U.S. DOT 49 CFR 172.101

<u>Proper shipping name:</u> Not a hazardous material with respect to these transport regulations. Not

controlled under DOT

Marine transport (IMDG)

UN number or ID number:No dangerous good in sense of this transport regulation.UN proper shipping name:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:No dangerous good in sense of this transport regulation.UN proper shipping name:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user



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refer to section 6 - 8

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

15. Regulatory information

U.S. Regulations

National Inventory TSCA

CAS 7647-14-5: listed in the TSCA inventory 8 (b): active; not listed under TSCA 12(b)

CAS 7447-40-7: listed in the TSCA inventory 8 (b): active; not listed under TSCA 12(b)

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

This mixture is classified as not hazardous according to Regulation 29 CFR Part 1910.1200.

16. Other information

Hazardous Materials Identification System (HMIS)

Health: 0
Flammability: 0
Physical Hazard: 0
Personal Protection: -

NFPA Hazard Ratings

Health: 0
Flammability: 0
Reactivity: 0
Unique Hazard: -



Changes

Revision date: 02/29/2024

Revision No: 1,0

Rev. 1,0; Initial release: 23.05.2023

Rev. 2,0; 29.02.2024; Changes in section: 1, 3, 9, 15, 16





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Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists

ASTM: American Society for Testing and Materials.

ATE: acute toxicity estimate BCF: Bio concentration factor ECHA: European Chemicals Agency CAS: Chemical Abstracts Service CFR: Code of Federal Regulations DOT: Department of Transportation

d: days

EC50: Half maximal effective concentration

EN: European Norm

EPA: Environmental Protection Agency

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

h: hours

HMIS: Hazardous Materials Identification System

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IBC: Intermediate Bulk Container

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent MARPOL: marine pollution

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NTP: National Toxicology Program

N/A: not applicable

NFPA: National Fire Protection Association

UN: United Nations

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

RTECS: Registry of Toxic Effects of Chemical Substances

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

SARA: Superfund Amendments and Reauthorization Act

STEL: short-term exposure limits TSCA: Toxic Substances Control Act TWA: time weighted average VOC: Volatile Organic Compounds

Other data

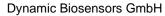
Classification according 29 CFR Part 1910.1200: - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of





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processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)