

## MSDS

Version 2.0  
Revision Date: 07/29/2025

### Product and Company Identification

**Product Name:** 5x DNA Loading Dye  
**Cat #:** 5DLD-100, 5DLD-200, 5DLD-OEM  
**Product Use:** For Research Use Only. Not for use in diagnostic procedures  
**Company:** Molecular Cloning Laboratories (MCLAB)  
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### Hazards Identification

**Classification of the substance or mixture**

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.**

**Information concerning particular hazards for human and environment:**

The product does not have to be labeled due to the calculation procedure of international guidelines.

**Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

**Label elements**

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

**Classification system:**

**NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 0

Fire = 0

Reactivity = 0

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT: Not applicable.**

**vPvB: Not applicable.**

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## Composition/information on ingredients

### Chemical characterization: Mixtures

**Description:** Solution, consisting of the following components.

Components:

7732-18-5	water	25-50%
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### Other components:

Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

## First-aid measures

### Description of first aid measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

### Information for doctor:

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture No further relevant information available.

#### Advice for firefighters

Protective equipment: No special measures required.

## Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not required.

### Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Reference to other sections No dangerous substances are released.

## Handling and storage

### Handling:

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**Precautions for safe handling** No special measures required.

**Information about protection against explosions and fires:** No special measures required.

Conditions for safe storage, including any incompatibilities

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

**Specific end use(s)** No further relevant information available.

## Exposure controls/personal protection

**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.

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

**Exposure controls**

**Personal protective equipment:**

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

**Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Goggles recommended during refilling.

## Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

Form: Solution

Color: Blue

Odor: Odorless

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pH-value at 25 °C 7.6  
°C (77 °F):

#### **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

**Flash point:** Not applicable.

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density at 20 °C (68 °F):** 1.18 g/cm<sup>3</sup> (9.847 lbs/gal)

#### **Solubility in / Miscibility with**

Water: Fully miscible.

Other information No further relevant information available.

## Stability and reactivity

### **Reactivity**

#### **Chemical stability**

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

## Toxicological information

### **Information on toxicological effects**

#### **Acute toxicity:**

##### **Primary irritant effect:**

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

#### **Carcinogenic categories**

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

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## Ecological information

### Toxicity

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability** No further relevant information available.

### Behavior in environmental systems:

**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

Additional ecological information:

### General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

## Disposal considerations

### Waste treatment methods

**Recommendation:** Smaller quantities can be disposed of with household waste.

### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

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

## Regulatory information

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

### Sara

#### Section 355 (extremely hazardous substances):

None of the ingredients is listed.

#### Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

#### TSCA (Toxic Substances Control Act):

All ingredients are listed.

#### Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

#### Carcinogenicity categories

EPA (Environmental Protection Agency)

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None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

**Product related hazard information:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

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

## Other Information

**For research use only.** The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.