# **KIT SAFETY DATA SHEET**



Kit Product Name LYNX RAPID FLUORESCEIN ANTIBODY CONJ KIT

Kit Catalog Number(s) LNK061F

Revision date 10-Nov-2021

## **Kit Contents**

Catalog Number(s)	Product Name
	LYNX LYOPHILIZED FLUORESCEIN MIX - #10534
	LYNX MODIFIER REAGENT - #10546
	LYNX QUENCHER REAGENT (FD) - #10549

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# SAFETY DATA SHEET



**Legal Entity / Contact Address** 

Hercules, California 94547

Revision date 10-Nov-2021 Revision Number 1

## 1. Identification

**Product identifier** 

Product Name LYNX LYOPHILIZED FLUORESCEIN MIX - #10534

Other means of identification

Safety data sheet number 10534

Recommended use of the chemical and restrictions on use

**Recommended use** For research use only

Details of the supplier of the safety data sheet

<u>Corporate Headquarters</u> <u>Manufacturer Address</u>

Bio-Rad Laboratories Inc.

Bio-Rad Bio-Rad Laboratories

1000 Alfred Nobel Drive

Endeavour House

Bio-Rad Laboratories

Life Science

1000 Alfred Nobel Drive Endeavour House Life Science
Hercules, CA 94547 Langford Business Park 2000 Alfred Nobel Drive

USA Kidlington
Oxford
OX5 1GE
United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

**Technical Service** 1-800-424-6723

support@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone

Number

CHEMTREC USA: 1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

### Hazard statements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Powder Physical state Solid Odor Odorless

#### Other information

## 3. Composition/information on ingredients

#### Substance

Chemical name	CAS No	Weight-%	Trade secret
Trade secret	Trade secret	50 - 100	*

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

### **Description of first aid measures**

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

## 5. Fire-fighting measures

surrounding environment.

**Unsuitable extinguishing media** No information available.

Specific hazards arising from the

chemical

None known.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

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Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store according to product and label instructions.

## 8. Exposure controls/personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls** 

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

**Skin and body protection**Wear suitable protective clothing.

exceeded or irritation is experienced, ventilation and evacuation may be required.

None known

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical stateSolidAppearancePowderColoryellowOdorOdorless

Odor threshold No information available

<b>Property</b>	<u>Values_</u>	Remarks • Method_
pH		None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known

Upper flammability or explosive No data available

Flammability Limit in Air

None known

None known

None known

limits

Lower flammability or explosive No data available

Vapor pressure No data available None known Vapor density No data available None known Relative density No data available None known

Water solubility

Soluble in water No data available Solubility in other solvents Partition coefficient No data available **Autoignition temperature** No data available **Decomposition temperature** 

None known Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known

Other information

**Explosive properties** Not applicable Not applicable **Oxidizing properties** Not applicable Softening point Molecular weight Not applicable **VOC Content (%)** Not applicable

## 10. Stability and reactivity

Reactivity No information available.

**Chemical stability** Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Specific test data for the substance or mixture is not available. Ingestion

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

**Symptoms** No information available.

Acute toxicity

### **Numerical measures of toxicity**

No information available

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

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitization Based on available data, the classification criteria are not met.

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

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

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

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

**Aspiration hazard** No information available. Other adverse effects No information available.

Interactive effects No information available.

## 12. Ecological information

The environmental impact of this product has not been fully investigated. **Ecotoxicity** 

Persistence and degradability No information available.

**Bioaccumulation** There is no data for this product.

Other adverse effects No information available.

## 13. Disposal considerations

Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

## 14. Transport information

DOT Not regulated

Not regulated **TDG** 

Not regulated MEX

IATA Not regulated

IMDG Not regulated

## 15. Regulatory information

### **International Inventories**

Contact supplier for inventory compliance status

### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **US State Regulations**

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

**US State Regulations**This product does not contain any substances regulated by state right-to-know regulations

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

### 16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

**Prepared By** Bio-Rad Laboratories, Environmental Health and Safety

**Revision date** 10-Nov-2021

**Revision Note** Significant changes throughout SDS. Review all sections.

**Disclaimer** 

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet** 

# SAFETY DATA SHEET



**Legal Entity / Contact Address** 

Hercules, California 94547

Revision date 03-Nov-2021 Revision Number 2

### 1. Identification

**Product identifier** 

Product Name LYNX MODIFIER REAGENT - #10546

Other means of identification

Safety data sheet number 10546

Recommended use of the chemical and restrictions on use

**Recommended use** For research use only

Details of the supplier of the safety data sheet

<u>Corporate Headquarters</u> <u>Manufacturer Address</u>

Bio-Rad Laboratories Inc.

Bio-Rad

Bio-Rad Laboratories

1000 Alfred Nobel Drive

Endeavour House

Life Science

1000 Alfred Nobel Drive Endeavour House Life Science
Hercules, CA 94547 Langford Business Park 2000 Alfred Nobel Drive

USA Kidlington
Oxford
OX5 1GE
United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

**Technical Service** 1-800-424-6723

support@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone

Number

CHEMTREC USA: 1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

### Hazard statements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance Clear to semi-clear Physical state Liquid Odor No information available

#### Other information

### 3. Composition/information on ingredients

#### Substance

Chemical name	CAS No	Weight-%	Trade secret
Trade secret	Trade secret	50 - 100	*

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

### **Description of first aid measures**

**General advice** No hazards which require special first aid measures.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

**Skin contact** Wash skin with soap and water.

**Ingestion** Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

## 5. Fire-fighting measures

surrounding environment.

**Unsuitable extinguishing media** No information available.

Specific hazards arising from the

chemical

None known.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

**Personal precautions** See section 8 for more information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

#### Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Storage Conditions Store according to product and label instructions.

## 8. Exposure controls/personal protection

#### Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

#### **Appropriate engineering controls**

Engineering controls Showers

Eyewash stations Ventilation systems.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state Liquid

Appearance Clear to semi-clear

**Color** Varies

Odor No information available No information available

<u>Property</u>	<u>Values_</u>	Remarks • Method
pH		None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
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Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

imits

Vapor pressureNo data availableNone knownVapor densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility Soluble in water

Solubility in other solventsNo data availableNone knownPartition coefficientNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNo data availableNone known

Kinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone known

Other information

Explosive properties
Oxidizing properties
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
VOC Content (%)
Not applicable

## 10. Stability and reactivity

**Reactivity** No information available.

**Chemical stability** Stable under normal conditions.

Possibility of hazardous reactions 
None under normal processing.

Conditions to avoid None known based on information supplied.

**Incompatible materials**None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

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

**Symptoms** No information available.

Acute toxicity

### **Numerical measures of toxicity**

No information available

Oral LD50 No information available

Dermal LD50No information availableInhalation LC50No information availableInhalation LC50No information available

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

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

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

**STOT - repeated exposure**Based on available data, the classification criteria are not met.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

## 12. Ecological information

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

Persistence and degradability No information available.

**Bioaccumulation** There is no data for this product.

Other adverse effects No information available.

### 13. Disposal considerations

Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

## 14. Transport information

DOT

TDG Not regulated

MEX Not regulated

<u>IATA</u> Not regulated

IMDG Not regulated

### 15. Regulatory information

#### International Inventories

Contact supplier for inventory compliance status

#### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### **U.S. State Right-to-Know Regulations**

**US State Regulations**This product does not contain any substances regulated by state right-to-know regulations

#### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

### 16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

## Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 03-Nov-2021

**Revision Note** Significant changes throughout SDS. Review all sections.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet** 

# **SAFETY DATA SHEET**



**Legal Entity / Contact Address** 

**Bio-Rad Laboratories** 

2000 Alfred Nobel Drive

Hercules, California 94547

Life Science

Revision date 21-Sep-2021 Revision Number 1

1. Identification

Product identifier

Product Name LYNX QUENCHER REAGENT (FD) - #10549

Other means of identification

Safety data sheet number 10549

Recommended use of the chemical and restrictions on use

**Recommended use** For research use only

Details of the supplier of the safety data sheet

Corporate Headquarters Manufa

Bio-Rad Laboratories Inc. 1000 Alfred Nobel Drive

Hercules, CA 94547

USA

<u>Manufacturer Address</u> Bio-Rad

Endeavour House Langford Business Park

Kidlington Oxford

OX5 1GE United Kingdom

e-mail:

antibody\_safetydatasheets@bio-rad.com

Technical Service 1-800-424-6723

support@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone

Number

CHEMTREC USA: 1 (800) 424-9300

## 2. Hazard(s) identification

### Classification

Skin sensitization Category 1A

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

## Warning

#### Hazard statements

May cause an allergic skin reaction

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Appearance Clear to semi-clear Physical state Liquid Odor No information available

### **Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves.

IF ON SKIN: Wash with plenty of water and soap.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### Other information

## 3. Composition/information on ingredients

### Substance

Not applicable.

#### <u>Mixture</u>

Chemical name	CAS No	Weight-%	Trade secret
2-Mercaptoethanol	60-24-2	0.1 - 0.299	*

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

### **Description of first aid measures**

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

**Skin contact** Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation

or allergic reactions see a physician.

**Ingestion** Rinse mouth thoroughly with water.

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

**Symptoms** Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

**Note to physicians**May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

surrounding environment.

**Unsuitable extinguishing media** No information available.

Specific hazards arising from the

chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak.

Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

### 7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take

off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

Keep out of the reach of children. Store according to product and label instructions.

## 8. Exposure controls/personal protection

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or

level that contributes to the hazard classification of the mixture) which have an exposure

limit applicable in the region for which this safety data sheet is intended or other

recommended limit. At this time, the other relevant constituents have no known exposure

limits from the sources listed here.

**Appropriate engineering controls** 

Engineering controls Showers

Eyewash stations

Ventilation systems.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection**Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid

Appearance Clear to semi-clear

**Color** Varies

Odor No information available
Odor threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

None known pН None known Melting point / freezing point No data available Boiling point / boiling range No data available None known Flash point No data available None known No data available **Evaporation rate** None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

In Air

John Flammability or explosive No data available

Upper flammability or explosive N limits

iimits .

Lower flammability or explosive No data available

limits

Vapor pressureNo data availableNone knownVapor densityNo data availableNone knownRelative densityNo data availableNone known

Water solubility
Solubility in other solvents
Solubility in other solvents
Solubility in other solvents
Solubility in other solvents

Solubility in other solventsNo data availableNone knownPartition coefficientNo data availableNone knownAutoignition temperatureNo data availableNone knownDecomposition temperatureNone knownVinematic viceosityNo data availableNone known

Kinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone known

Other information

Explosive propertiesNot applicableOxidizing propertiesNot applicableSoftening pointNot applicableMolecular weightNot applicableVOC Content (%)Not applicable

### 10. Stability and reactivity

**Reactivity** No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid None known based on information supplied.

\_\_\_\_\_

**Incompatible materials**None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

### 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** May cause sensitization by skin contact. Specific test data for the substance or mixture is

not available. Repeated or prolonged skin contact may cause allergic reactions with

susceptible persons. (based on components).

**Ingestion** Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** Itching. Rashes. Hives.

Acute toxicity

**Numerical measures of toxicity** 

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-Mercaptoethanol	= 244 mg/kg (Rat)	112 - 224 mg/kg (Rabbit)	-
60-24-2		= 150 μL/kg (Rabbit)	

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

**Skin corrosion/irritation**Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

**Respiratory or skin sensitization** May cause sensitization by skin contact.

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

**STOT - repeated exposure**Based on available data, the classification criteria are not met.

**Aspiration hazard** No information available.

Other adverse effects No information available.

**Interactive effects**No information available.

## 12. Ecological information

### **Ecotoxicity**

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
2-Mercaptoethanol	EC50: =12mg/L (72h,	LC50: 46 - 100mg/L (96h,	-	EC50: =1.52mg/L (48h,
60-24-2	Desmodesmus	Leuciscus idus)		Daphnia magna)
	subspicatus)			

Persistence and degradability No information available.

**Bioaccumulation** There is no data for this product.

**Component Information** 

Chemical name	Partition coefficient	
2-Mercaptoethanol	-0.056	
60-24-2		

Other adverse effects No information available.

## 13. Disposal considerations

### Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

## 14. Transport information

Not regulated **DOT** Not regulated TDG Not regulated MEX IATA Not regulated Not regulated IMDG

### 15. Regulatory information

### **International Inventories**

Contact supplier for inventory compliance status

## **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### **U.S. State Right-to-Know Regulations**

### **US State Regulations**

This product does not contain any substances regulated by state right-to-know regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-Mercaptoethanol	X	X	X
60-24-2			

#### U.S. EPA Label Information

### EPA Pesticide Registration Number Not applicable

## 16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

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**Revision Note** Significant changes throughout SDS. Review all sections.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**