

KIT SAFETY DATA SHEET



Kit Product Name MITOCHONDRIAL MEMBRANE POTENTIAL KIT

Kit Catalogue Number(s) Not applicable

Revision date 11-Mar-2022

Kit Contents

Catalogue Number(s)	Product Name
	10X ASSAY BUFFER - #10474
	CCCP REAGENT - #10479
	TETRAMETHYLRHODAMINE ETHYL ESTER PERCHLORATE - #20294



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 11-Mar-2022

Revision Number 2

1. IDENTIFICATION

Product identifier

Product Name 10X ASSAY BUFFER - #10474

Other means of identification

Safety data sheet number 10474

Registration Number(s) No information available

Recommended use of the chemical and restrictions on use

Recommended use For research use only

Supplier's details

Corporate Headquarters

Bio-Rad Laboratories Inc.
1000 Alfred Nobel Drive
Hercules, CA 94547
USA

Manufacturer

Bio-Rad
Endeavour House
Langford Business Park
Kidlington
Oxford
OX5 1GE
United Kingdom
e-mail:
antibody_safetydatasheets@bio-rad.com

Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.
Bio-Rad House
86-87, Udyog Vihar Phase IV Gurgaon
122005
Haryana India

Bio-Rad Laboratories (Pty) Ltd.
34 Bolton Road
Parkwood, Johannesburg 2193
South Africa

Technical Service

India: 91-124-4029300 or 1-800-180-1224
South Africa: 27-11-442-85-08
India: support.india@bio-rad.com
South Africa: cdg_techsupport_eemea@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC India: 000-800-100-7141
CHEMTREC South Africa: 0-800-983-611

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture according to the Globally Harmonised System (GHS)

GHS Label elements, including precautionary statements

Other hazards which do not result in classification

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

4. FIRST AID MEASURES

Description of necessary first aid measures

Inhalation	Remove to fresh air.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Rinse mouth thoroughly with water.

For emergency responders

Self-protection of the first aider	No information available.
------------------------------------	---------------------------

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
----------	---------------------------

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians	Treat symptomatically.
--------------------	------------------------

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
------------------------------	---

Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
------------	--

Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
--------------------------------	---

Specific hazards arising from the chemical

Specific hazards arising from the chemical	No information available.
--	---------------------------

Special protective actions for fire-fighters

Special protective equipment and precautions 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	Ensure adequate ventilation.
----------------------	------------------------------

Environmental precautions

Environmental precautions	See Section 12 for additional Ecological 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.
-------------------------	--

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

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 Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines 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).

Skin and body protection Wear suitable protective clothing.

Hand protection Wear suitable gloves.

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	Odour	No information available
Appearance	Clear to semi-clear	Odour threshold	No information available
Colour	Varies		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapour pressure		No information available
Vapour density		No information available
Relative density		No information available
Solubility(ies)		

Water solubility	Soluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity		
Kinematic viscosity		No information available
Dynamic viscosity		

Other information

Oxidising properties	Not applicable
----------------------	----------------

10. STABILITY AND REACTIVITY**Reactivity**

Reactivity	No information available.
------------	---------------------------

Chemical stability

Stability	Stable under normal conditions.
-----------	---------------------------------

Explosion data

Sensitivity to mechanical impact	None
Sensitivity to static discharge	None.

Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
------------------------------------	-------------------------------

Conditions to avoid

Conditions to avoid	None known based on information supplied.
---------------------	---

Incompatible materials

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

Hazardous decomposition products

Hazardous decomposition products	None known based on information supplied.
----------------------------------	---

11. TOXICOLOGICAL INFORMATION**Information on the 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	No information available.

Acute toxicity**Numerical measures of toxicity**

Oral LD50	No information available
-----------	--------------------------

Dermal LD50	No information available
Inhalation LC50	No information available
Inhalation LC50	No information available

Delayed and immediate effects and also chronic effects from short and long term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION**Toxicity**

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Ecotoxicity**Persistence and degradability**

No information available.

Bioaccumulative potential

No information available.

Mobility

Mobility in soil No information available.

Mobility No information available.

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS**Disposal 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

IMDG	Not regulated
Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available
IATA	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated
Special precautions for user	Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

Contact supplier for inventory compliance status

16. OTHER INFORMATION

Prepared By	Bio-Rad Laboratories, Environmental Health and Safety
Revision date	11-Mar-2022
Revision Note	*** Indicates this information has changed since the previous revision.

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
C	Carcinogen		

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

This safety data sheet was created pursuant to the requirements of:
The Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Revision date 19-Nov-2021

Revision Number 1

1. IDENTIFICATION

Product identifier

Product Name CCCP REAGENT - #10479

Other means of identification

Safety data sheet number 10479

Registration Number(s) No information available

Recommended use of the chemical and restrictions on use

Recommended use For research use only

Supplier's details

Corporate Headquarters

Bio-Rad Laboratories Inc.
1000 Alfred Nobel Drive
Hercules, CA 94547
USA

Manufacturer

Bio-Rad
Endeavour House
Langford Business Park
Kidlington
Oxford
OX5 1GE
United Kingdom
e-mail:
antibody_safetydatasheets@bio-rad.com

Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.
Bio-Rad House
86-87, Udyog Vihar Phase IV Gurgaon
122005
Haryana India

Bio-Rad Laboratories (Pty) Ltd.
34 Bolton Road
Parkwood, Johannesburg 2193
South Africa

Technical Service

India: 91-124-4029300 or 1-800-180-1224
South Africa: 27-11-442-85-08
India: support.india@bio-rad.com
South Africa: cdg_techsupport_eemea@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC India: 000-800-100-7141
CHEMTREC South Africa: 0-800-983-611

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 3

GHS Label elements, including precautionary statements



Signal word

Danger

Hazard statements

Toxic if inhaled

Causes mild skin irritation

Precautionary Statements - Prevention

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

Use only outdoors or in a well-ventilated area

Skin

If skin irritation occurs: Get medical advice/attention

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other hazards which do not result in classification

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical name	CAS No	Weight-%
Propanedinitrile, [(3-chlorophenyl)hydrazono]- 555-60-2	555-60-2	1

4. FIRST AID MEASURES

Description of necessary first aid measures**General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation

If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Immediate medical attention is required. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.

Skin contact

Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Ingestion

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

For emergency responders**Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not breathe vapor or mist. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed**Symptoms**

Coughing and/ or wheezing. Difficulty in breathing. Prolonged contact may cause redness

and irritation.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

Special protective actions for fire-fighters

Special protective equipment and precautions 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 Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological 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.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information Refer to protective measures listed in Sections 7 and 8.

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. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV		OSHA PEL	Ontario	European Union
Propanedinitrile, [(3-chlorophenyl)hydrazono]- 555-60-2	No data available		TWA: 5 mg/m³ CN (vacated) TWA: 5 mg/m³ S* as CN	-	-
Chemical name	China	Japan Society of Occupational Health	OEL	Australia	Taiwan
Propanedinitrile, [(3-chlorophenyl)hydrazono]- 555-60-2	-	-	TWA: 5 mg/m³ Skin*	-	TWA: 5 mg/m³ STEL: 10 mg/m³ Skin*

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).

Skin and body protection Wear suitable protective clothing.

Hand protection Wear suitable gloves.

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 Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odour	No information available
Appearance	Clear to semi-clear	Odour threshold	No information available
Colour	Varies		
Property	Values	Remarks • Method	
pH		No information available	
Melting point / freezing point		No information available	
Boiling point / boiling range		No information available	
Flash point		No information available	
Evaporation rate		No information available	
Flammability (solid, gas)		No information available	
Upper/lower flammability or explosive limits			
Upper flammability or explosive limits	Not applicable		
Lower flammability or explosive limits	Not applicable		
Vapour pressure		No information available	
Vapour density		No information available	
Relative density		No information available	
Solubility(ies)			
Water solubility	Soluble in water		
Solubility in other solvents		No information available	

Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	
Kinematic viscosity	No information available
Dynamic viscosity	

Other information

Oxidising properties	Not applicable
----------------------	----------------

10. STABILITY AND REACTIVITY**Reactivity**

Reactivity	No information available.
------------	---------------------------

Chemical stability

Stability	Stable under normal conditions.
-----------	---------------------------------

Explosion data

Sensitivity to mechanical impact	None
Sensitivity to static discharge	None.

Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
------------------------------------	-------------------------------

Conditions to avoid

Conditions to avoid	Excessive heat.
---------------------	-----------------

Incompatible materials

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

Hazardous decomposition products

Hazardous decomposition products	None known based on information supplied.
----------------------------------	---

11. TOXICOLOGICAL INFORMATION**Information on the likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. Toxic by inhalation. (based on components).
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. Causes mild skin irritation.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms	Coughing and/ or wheezing. Difficulty in breathing. Prolonged contact may cause redness and irritation.

Acute toxicity**Numerical measures of toxicity**

Oral LD50	No information available
-----------	--------------------------

Dermal LD50	No information available
Inhalation LC50	No information available
Inhalation LC50	No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	5,942.60 mg/kg
ATEmix (dermal)	17,216.60 mg/kg
ATEmix (inhalation-dust/mist)	0.501 mg/l

Component Information

Delayed and immediate effects and also chronic effects from short and long term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. May cause skin irritation.
Serious eye damage/irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Ecotoxicity

Persistence and degradability

No information available.

Bioaccumulative potential

There is no data for this product.

Mobility

Mobility in soil No information available.

Mobility No information available.

Other adverse effects

Chemical name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disrupters - Evaluated Substances	Endocrine disrupting potential
Propanedinitrile, [(3-chlorophenyl)hydrazono]-	Group III Chemical	-	-

13. DISPOSAL CONSIDERATIONS**Disposal 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

<u>IMDG</u>	Not regulated
Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available
<u>IATA</u>	Not regulated
<u>RID</u>	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated
Special precautions for user	Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

Contact supplier for inventory compliance status

16. OTHER INFORMATION

Prepared By	Bio-Rad Laboratories, Environmental Health and Safety
Revision date	19-Nov-2021
Revision Note	*** Indicates this information has changed since the previous revision.

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
C	Carcinogen		

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

Revision date 18-Jan-2022

Revision Number 1

1. IDENTIFICATION

Product identifier

Product Name TETRAMETHYLRHODAMINE ETHYL ESTER PERCHLORATE - #20294

Other means of identification

Safety data sheet number 20294

Registration Number(s) No information available

Recommended use of the chemical and restrictions on use

Recommended use For research use only

Supplier's details

Corporate Headquarters

Bio-Rad Laboratories Inc.
1000 Alfred Nobel Drive
Hercules, CA 94547
USA

Manufacturer

Bio-Rad
Endeavour House
Langford Business Park
Kidlington
Oxford
OX5 1GE
United Kingdom
e-mail:
antibody_safetydatasheets@bio-rad.com

Legal Entity / Contact Address

Bio-Rad Laboratories Pvt. Ltd.
Bio-Rad House
86-87, Udyog Vihar Phase IV Gurgaon
122005
Haryana India

Bio-Rad Laboratories (Pty) Ltd.
34 Bolton Road
Parkwood, Johannesburg 2193
South Africa

Technical Service

India: 91-124-4029300 or 1-800-180-1224
South Africa: 27-11-442-85-08
India: support.india@bio-rad.com
South Africa: cdg_techsupport_eemea@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC India: 000-800-100-7141
CHEMTREC South Africa: 0-800-983-611

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

GHS Label elements, including precautionary statements



Signal word

Warning

Hazard statements

Harmful if swallowed
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection

Eyes

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

If eye irritation persists: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of water and soap

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor if you feel unwell

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other hazards which do not result in classification

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No	Weight-%
Tetramethylrhodamine ethyl ester perchlorate 115532-52-0	115532-52-0	100

4. FIRST AID MEASURES

Description of necessary first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur. If breathing has stopped, give artificial respiration. Get medical attention immediately. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

Ingestion

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.

For emergency responders

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

Special protective actions for fire-fighters

Special protective equipment and precautions 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. Avoid generation of dust. Do not breathe dust.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

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.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information Refer to protective measures listed in Sections 7 and 8.

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. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines	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	If splashes are likely to occur, wear safety glasses with side-shields.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
Hand protection	Wear suitable gloves. Impervious gloves.
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	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Powder	Odour	No information available
Appearance	Powder	Odour threshold	No information available
Colour	Varies		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapour pressure		No information available
Vapour density		No information available
Relative density		No information available
Solubility(ies)		

Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity		
Kinematic viscosity		No information available
Dynamic viscosity		

Other information

Oxidising properties	Not applicable
----------------------	----------------

10. STABILITY AND REACTIVITY

Reactivity

Reactivity	No information available.
------------	---------------------------

Chemical stability

Stability	Stable under normal conditions.
-----------	---------------------------------

Explosion data

Sensitivity to mechanical impact	None
Sensitivity to static discharge	None.

Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
------------------------------------	-------------------------------

Conditions to avoid

Conditions to avoid	Excessive heat.
---------------------	-----------------

Incompatible materials

Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents.
------------------------	--

Hazardous decomposition products

Hazardous decomposition products	None known based on information supplied.
----------------------------------	---

11. TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).
Eye contact	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components).
Symptoms	Redness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

Acute toxicity

Numerical measures of toxicity

Oral LD50	No information available
Dermal LD50	No information available
Inhalation LC50	No information available
Inhalation LC50	No information available

Delayed and immediate effects and also chronic effects from short and long term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Irritating to skin.
Serious eye damage/irritation	Classification based on data available for ingredients. Causes serious eye irritation.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Toxicity

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

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility

Mobility in soil	No information available.
-------------------------	---------------------------

Mobility	No information available.
-----------------	---------------------------

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal 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

IMDG Not regulated
Transport in bulk according to Annex II of MARPOL and the IBC Code No information available

IATA Not regulated

RID Not regulated

ADR Not regulated

ADN Not regulated

Special precautions for user Special provisions from the regulations relative to the specified mode of transport are noted by numeric code. Refer to the regulations for the full text of special provisions.

15. REGULATORY INFORMATION

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

Contact supplier for inventory compliance status

16. OTHER INFORMATION

Prepared By Bio-Rad Laboratories, Environmental Health and Safety

Revision date 18-Jan-2022

Revision Note *** Indicates this information has changed since the previous revision.

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
C	Carcinogen		

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