



10/27/2020

KIT COMPONENTS

Product name: **OPACITY CONTROL KIT**

Product code: **56499**

Article number	Description	Quantity	Symbols
5655R	1.5 Mac Farland, 3 ml	1	
6780C	1 Mac Farland, 1 x 3 ml	1	

Safety Data Sheet

29 CFR Part 1910.1200

Printing date 10/27/2020

Reviewed on 08/11/2015

1 Identification

- **Product identifier**
 - **Trade name:** 1.5 Mac Farland, 3 ml
 - **Article number:** 5655R
 - **Application of the substance / the mixture**
Laboratory reagent or component.
In vitro diagnostic medical device or component.
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Bio-Rad
3, Boulevard Raymond Poincaré
F-92430 Marnes-la-Coquette
Tel.: +33 (0)1 47 95 60 00
Fax : +33 (0)1 47 41 91 33
e-mail: fds-msds.fr@bio-rad.com
 - **Information department:** Customer support.
 - **Emergency telephone number:** See item 16

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
 - **GHS label elements** Void
 - **Hazard pictograms** Void
 - **Signal word** Void
 - **Hazard statements** Void
- **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.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
 - **Description:** Mixture containing components at a non hazardous concentration.

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Trade name: 1.5 Mac Farland, 3 ml

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· Dangerous components:

7664-93-9	sulphuric acid	0.1-2.5%
	 Carc. 1A, H350  Met. Corr.1, H290; Skin Corr. 1A, H314	

4 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:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Consult a doctor, if necessary.
- **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.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
 - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear disposable gloves.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb liquid components with liquid-binding material.
Dispose contaminated material as waste according to item 13.
- **Reference to other sections** No dangerous substances are released.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Avoid all contact with reagents, even those considered to be non-hazardous.
Follow good laboratory practices.

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Trade name: 1.5 Mac Farland, 3 ml

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- **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.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

7664-93-9 sulphuric acid

PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 1 mg/m ³
TLV	Long-term value: 0.2* mg/m ³ *as thoracic fraction

- **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:** Suitable respiratory protective device recommended.
 - **Protection of hands:** Protective gloves
 - **Eye protection:** Safety glasses

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

· General Information

- **Appearance:**
- **Form:** Fluid
- **Color:** According to product specification
- **Odor:** Characteristic

· Change in condition

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

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

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Trade name: 1.5 Mac Farland, 3 ml

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· Danger of explosion:	Product does not present an explosion hazard.
· Density:	Not determined.
· Solubility in / Miscibility with	
· Water:	Fully miscible.
· Solvent content:	
· Organic solvents:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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.

11 Toxicological information

- **Information on toxicological effects**
 - **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)	
7664-93-9 sulphuric acid	1
· NTP (National Toxicology Program)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

12 Ecological information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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Trade name: 1.5 Mac Farland, 3 ml

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- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.
 - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· ADR, IMDG, IATA	Void
· UN proper shipping name	
· ADR, IMDG, IATA	Void
· Transport hazard class(es)	
· ADR, IMDG, IATA	
· Class	Void
· Packing group	
· ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.

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Trade name: 1.5 Mac Farland, 3 ml

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15 Regulatory information

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

- **Section 355 (extremely hazardous substances):**

7664-93-9	sulphuric acid
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- **Section 313 (Specific toxic chemical listings):**

7664-93-9	sulphuric acid
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- **TSCA (Toxic Substances Control Act):**

7732-18-5	water, distilled, conductivity or of similar purity
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7664-93-9	sulphuric acid
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- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.	
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- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.	
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- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.	
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- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.	
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- **Carcinogen categories**

- **EPA (Environmental Protection Agency)**

10326-27-9	barium chloride, dihydrate		D; NL
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- **TLV (Threshold Limit Value established by ACGIH)**

7664-93-9	sulphuric acid		A2
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10326-27-9	barium chloride, dihydrate		A4
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- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.	
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- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:**
SDS / FDS Administr.
Bio-Rad
Marnes-la-Coquette, France

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Trade name: 1.5 Mac Farland, 3 ml

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· Contact:

Customer Support
Phone : +33 (0)1 47 95 60 91
Customer Support
Phone : +33 (0)1 47 95 62 77
USA
Bio-Rad Laboratories
6565 185th Avenue NE
Redmond, WA 98052-5039

Phone Number: 1-800-2BIORAD (1-800-224-6723) or (425) 881-8300 (daytime PST)

· **Date of preparation / last revision** 10/27/2020 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Met. Corr. 1: Corrosive to metals – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Carc. 1A: Carcinogenicity – Category 1A

— USA —

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Printing date 10/27/2020

Reviewed on 08/11/2015

1 Identification

- **Product identifier**
 - **Trade name:** 1 Mac Farland, 1 x 3 ml
 - **Article number:** 6780C
 - **Application of the substance / the mixture**
Laboratory reagent or component.
In vitro diagnostic medical device or component.
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Bio-Rad
3, Boulevard Raymond Poincaré
F-92430 Marnes-la-Coquette
Tel.: +33 (0)1 47 95 60 00
Fax : +33 (0)1 47 41 91 33
e-mail: fds-msds.fr@bio-rad.com
 - **Information department:** Customer support.
 - **Emergency telephone number:** See item 16

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).
- **Label elements**
 - **GHS label elements** Void
 - **Hazard pictograms** Void
 - **Signal word** Void
 - **Hazard statements** Void
- **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.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
 - **Description:** Mixture containing components at a non hazardous concentration.

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Reviewed on 08/11/2015

Trade name: 1 Mac Farland, 1 x 3 ml

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· Dangerous components:

7664-93-9	sulphuric acid  Carc. 1A, H350  Met. Corr.1, H290; Skin Corr. 1A, H314	0.1-2.5%
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4 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:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Consult a doctor, if necessary.
- **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.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
 - **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear disposable gloves.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb liquid components with liquid-binding material.
Dispose contaminated material as waste according to item 13.
- **Reference to other sections** No dangerous substances are released.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Avoid all contact with reagents, even those considered to be non-hazardous.
Follow good laboratory practices.

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Reviewed on 08/11/2015

Trade name: 1 Mac Farland, 1 x 3 ml

(Contd. of page 2)

- **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.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

7664-93-9 sulphuric acid

PEL	Long-term value: 1 mg/m ³
REL	Long-term value: 1 mg/m ³
TLV	Long-term value: 0.2* mg/m ³ *as thoracic fraction

- **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:** Suitable respiratory protective device recommended.
 - **Protection of hands:** Protective gloves
 - **Eye protection:** Safety glasses

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

· General Information

- **Appearance:**
 - **Form:** Fluid
 - **Color:** According to product specification
 - **Odor:** Characteristic

· Change in condition

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

- **Flash point:** Not applicable.

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

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29 CFR Part 1910.1200

Printing date 10/27/2020

Reviewed on 08/11/2015

Trade name: 1 Mac Farland, 1 x 3 ml

(Contd. of page 3)

· Danger of explosion:	Product does not present an explosion hazard.
· Density:	Not determined.
· Solubility in / Miscibility with	
· Water:	Fully miscible.
· Solvent content:	
· Organic solvents:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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.

11 Toxicological information

- **Information on toxicological effects**
 - **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)	
7664-93-9 sulphuric acid	1
· NTP (National Toxicology Program)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

12 Ecological information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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29 CFR Part 1910.1200

Printing date 10/27/2020

Reviewed on 08/11/2015

Trade name: 1 Mac Farland, 1 x 3 ml

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- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.
 - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADN, IMDG, IATA	Void
· ADR	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

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Reviewed on 08/11/2015

Trade name: 1 Mac Farland, 1 x 3 ml

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15 Regulatory information

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

- **Section 355 (extremely hazardous substances):**

7664-93-9	sulphuric acid
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- **Section 313 (Specific toxic chemical listings):**

7664-93-9	sulphuric acid
-----------	----------------

- **TSCA (Toxic Substances Control Act):**

7732-18-5	water, distilled, conductivity or of similar purity
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7664-93-9	sulphuric acid
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- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.	
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- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.	
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- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.	
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- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.	
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- **Carcinogen categories**

- **EPA (Environmental Protection Agency)**

10326-27-9	barium chloride, dihydrate		D; NL
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- **TLV (Threshold Limit Value established by ACGIH)**

7664-93-9	sulphuric acid		A2
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10326-27-9	barium chloride, dihydrate		A4
------------	----------------------------	--	----

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

None of the ingredients is listed.	
------------------------------------	--

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:**

SDS / FDS Administr.

Bio-Rad

Marnes-la-Coquette, France

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Trade name: 1 Mac Farland, 1 x 3 ml

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· Contact:

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Phone : +33 (0)1 47 95 60 91
Customer Support
Phone : +33 (0)1 47 95 62 77
USA
Bio-Rad Laboratories
6565 185th Avenue NE
Redmond, WA 98052-5039

Phone Number: 1-800-2BIORAD (1-800-224-6723) or (425) 881-8300 (daytime PST)

· Date of preparation / last revision 10/27/2020 / 1**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Met. Corr. 1: Corrosive to metals – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Carc. 1A: Carcinogenicity – Category 1A

—USA—