

Revision date 27-Aug-2021

Revision Number 2.1

1. IDENTIFICATION

Product identifier

Product Name UCAT by HPLC Mobile Phase

Other means of identification

Catalogue Number(s) 1956073

Registration Number(s) No information available

Recommended use of the chemical and restrictions on use

Recommended use In-vitro laboratory reagent or component

Supplier's details

Corporate Headquarters

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

Manufacturer

Bio-Rad Laboratories, Diagnostic Group
4000 Alfred Nobel Drive
Hercules, California 94547
USA

Legal Entity / Contact Address

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Bio-Rad Laboratories (Pty) Ltd.
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Technical Service

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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

Reproductive toxicity

Category 1B

GHS Label elements, including precautionary statements



Signal word

Danger

Hazard statements

May damage fertility or the unborn child

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

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-%
Water 7732-18-5	7732-18-5	93.66
Isopropyl alcohol 67-63-0	67-63-0	5.55
Diammonium phosphate 7783-28-0	7783-28-0	0.4
Citric acid 77-92-9	77-92-9	0.25
Boric acid (H3BO3) 10043-35-3	10043-35-3	0.12
Phosphoric acid 7664-38-2	7664-38-2	0.01

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.

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. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	Ontario	European Union	
Isopropyl alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m³	TWA: 200 ppm STEL: 400 ppm	-	
Boric acid (H3BO3) 10043-35-3	STEL: 6 mg/m³ inhalable particulate matter TWA: 2 mg/m³ inhalable particulate matter	-	TWA: 2 mg/m³ STEL: 6 mg/m³	-	
Phosphoric acid 7664-38-2	STEL: 3 mg/m³ TWA: 1 mg/m³	TWA: 1 mg/m³ (vacated) TWA: 1 mg/m³ (vacated) STEL: 3 mg/m³	TWA: 1 mg/m³ STEL: 3 mg/m³	TWA: 1 mg/m³ STEL: 2 mg/m³	
Chemical name	China	Japan Society of Occupational Health	Korea	Australia	Taiwan
Isopropyl alcohol 67-63-0	TWA: 350 mg/m³ STEL: 700 mg/m³	Ceiling: 400 ppm Ceiling: 980 mg/m³	TWA: 200 ppm STEL: 400 ppm	400 ppm 983 mg/m³ 500 ppm STEL 1230 mg/m³ STEL	TWA: 400 ppm TWA: 983 mg/m³ STEL: 500 ppm STEL: 1228.75 mg/m³
Phosphoric acid 7664-38-2	TWA: 1 mg/m³ STEL: 3 ma/m³	TWA: 1 mg/m³	TWA: 1 mg/m³ STEL: 3 ma/m³	1 mg/m³ 3 ma/m³ STEL	TWA: 1 mg/m³ STEL: 2 ma/m³

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

Do not eat, drink or smoke when using this product. 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

Appearance

No information available

Colour

No information available

Odour

Odourless

Odour threshold

No information available

Property**Values****Remarks • Method****pH**

5.5

Melting point / freezing point

No information available

Boiling point / boiling range

97 °C / 206.6 °F

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	Miscible 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
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10. STABILITY AND REACTIVITY**Reactivity**

Reactivity	No information available.
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Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None
Sensitivity to static discharge	None.

Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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Conditions to avoid

Conditions to avoid	None known based on information supplied.
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Incompatible materials

Incompatible materials	None known based on information supplied.
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Hazardous decomposition products

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

5.56 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 5.56 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

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

ATEmix (oral) 33,693.70 mg/kg
 ATEmix (dermal) 73,135.10 mg/kg
 ATEmix (inhalation-dust/mist) 1,308.10 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-
Isopropyl alcohol	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
Diammonium phosphate	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Citric acid	= 3 g/kg (Rat) = 3000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Boric acid (H ₃ BO ₃)	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h
Phosphoric acid	= 1530 mg/kg (Rat)	= 2740 mg/kg (Rabbit)	> 850 mg/m ³ (Rat) 1 h

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.

Chemical name	IARC
Isopropyl alcohol	Group 3
Boric acid (H ₃ BO ₃)	Group 2A

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target organ effects Respiratory system, Eyes, Skin.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION**Toxicity**

0.01 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
Isopropyl alcohol	EC50: >1000mg/L (72h, <i>Desmodesmus subspicatus</i>) EC50: >1000mg/L (96h, <i>Desmodesmus subspicatus</i>)	LC50: =11130mg/L (96h, <i>Pimephales promelas</i>) LC50: =9640mg/L (96h, <i>Pimephales promelas</i>) LC50: >1400000µg/L (96h, <i>Lepomis macrochirus</i>)	EC50: =13299mg/L (48h, <i>Daphnia magna</i>)
Diammonium phosphate	-	LC50: 24.8 - 29.4mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =26.5mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =3.3mg/L (96h, <i>Pimephales promelas</i>) LC50: =33mg/L (96h, <i>Pimephales promelas</i>)	-
Citric acid	-	LC50: =1516mg/L (96h, <i>Lepomis macrochirus</i>)	EC50: =120mg/L (72h, <i>Daphnia magna</i>)
Boric acid (H3BO3)	-	LC50: =1020mg/L (72h, <i>Carassius auratus</i>)	EC50: 115 - 153mg/L (48h, <i>Daphnia magna</i>)
Phosphoric acid	-	LC50: 3 - 3.5mg/L (96h, <i>Gambusia affinis</i>)	EC50: =4.6mg/L (12h, <i>Daphnia magna</i>)

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.

Chemical name	Partition coefficient
Isopropyl alcohol	0.05
Citric acid	-1.72
Boric acid (H3BO3)	-0.757

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

<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 27-Aug-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