

Revision date 21-Feb-2021

Revision Number 1

1. IDENTIFICATION

Product identifier

Product Name UCAT/UMET Acidic Reagent

Other means of identification

Catalogue Number(s) 1956037

UN/ID no UN3265

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

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

Corrosive to metals	Category 1
Flammable liquids	Category 3

GHS Label elements, including precautionary statements



Signal word

May be corrosive to metals
Flammable liquid and vapour

Warning

Precautionary Statements - Prevention

Ground and bond container and receiving equipment

Use non-sparking tools

Take action to prevent static discharges

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

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

Keep only in original packaging

Precautionary Statements - Response**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

Fire

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Spill

Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Store in corrosion resistant container with a resistant inner liner

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-%
Acetic acid 64-19-7	64-19-7	6.5

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.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. 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. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

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

Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid

contact with skin, eyes or clothing.

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 doctors Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

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 Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective actions for fire-fighters

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 Evacuate personnel to safe areas. See section 8 for more information. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

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

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

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Store according to product and label instructions.

Incompatible materials

Oxidising agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	Ontario	European Union	
Acetic acid 64-19-7	STEL: 15 ppm TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m³ (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m³	TWA: 10 ppm STEL: 15 ppm	-	
Chemical name	China	Japan Society of Occupational Health	Korea	Australia	Taiwan
Acetic acid 64-19-7	TWA: 10 mg/m³ STEL: 20 mg/m³	TWA: 10 ppm TWA: 25 mg/m³	TWA: 10 ppm STEL: 15 ppm	10 ppm 25 mg/m³ 15 ppm STEL 37 mg/m³ STEL	TWA: 10 ppm TWA: 25 mg/m³ STEL: 15 ppm STEL: 37.5 mg/m³

Appropriate engineering controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

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

Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning

of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odour	Odourless
Appearance	aqueous solution	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	100 °C / 212 °F	
Flash point	> 55 °C / 131 °F	
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
Explosive properties	Not applicable

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	Yes.

Possibility of hazardous reactions

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

Conditions to avoid	Heat, flames and sparks. Exposure to air or moisture over prolonged periods.
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Incompatible materials

Incompatible materials Oxidising agent.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

11. TOXICOLOGICAL INFORMATIONInformation 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**

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

ATEmix (oral) 50,923.10 mg/kg

ATEmix (dermal) 16,307.70 mg/kg

ATEmix (inhalation-dust/mist) 175.40 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acetic acid	= 3310 mg/kg (Rat)	= 1060 mg/kg (Rabbit)	= 11.4 mg/L (Rat) 4 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 sensitisation 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.

Target organ effects Respiratory system, Eyes, Skin, Teeth.

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Acetic acid	-	LC50: =75mg/L (96h, <i>Lepomis macrochirus</i>) LC50: =79mg/L (96h, <i>Pimephales promelas</i>)	EC50: =47mg/L (24h, <i>Daphnia magna</i>) EC50: =65mg/L (48h, <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
Acetic acid	-0.31

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

14. TRANSPORT INFORMATION

IMDG

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Description	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Acetic acid), 8, III
Transport hazard class(es)	8
Packing group	III
Marine pollutant	NP
Special Provisions	223, 274
EmS-No	F-A, S-B
Transport in bulk according to Annex II of MARPOL and the IBC	No information available

Code**IATA**

UN number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s.
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s. (Acetic acid), 8, III
Transport hazard class(es)	8
Packing group	III
Special Provisions	A3, A803
ERG Code	8L

RID

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Description	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Acetic acid), 8, III
Transport hazard class(es)	8
Labels	8
Packing group	III
Classification code	C3
Special Provisions	274

ADR

UN number	3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Description	3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Acetic acid), 8, III
Transport hazard class(es)	8
Labels	8
Packing group	III
Classification code	C3
Special Provisions	274

ADN

UN number	UN3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Description	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Acetic acid), 8, III
Transport hazard class(es)	8
Hazard label(s)	8
Packing group	III
Classification code	C3
Special Provisions	274
Limited quantity (LQ)	5 L
Equipment Requirements	PP, EP

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 21-Feb-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