



Material Safety Data Sheet (MSDS)
Revision Date: 11-28-2022

Kit Name: VitroView™ RTU Acridine Orange Nuclear Staining Solution
Catalog#: VB-1002

Components:

VB-1002	RTU Acridine Orange Nuclear Staining Solution
---------	---

VB-1002 RTU Acridine Orange Nuclear Staining Solution MSDS

1. Identification of the Substance/Mixture and Company

Product Name	RTU Acridine Orange Nuclear Staining Solution
Catalog#	VB-1002
Product Description	Component
Manufacturer/Supplier	VitroVivo Biotech, LLC. 405 E Gude Dr., Suite 214, Rockville, MD 20850
Tel/fax Number	Phone: 301-500-0499; Toll free: 1-800-260-9817 Fax: 844-248-6208

2. Hazards Identification

Classification of the substance or mixture

Classification	
Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

Label elements

EC number	200-614-0
Hazard statements	NC Not Classified
Precautionary statements	EUH210 Safety data sheet available on request.

Other hazards

No information available.

3. Composition/information on ingredients

Mixtures Description: Mixture of the substances listed below.

Composition:

Component	CAS#
Acridine Orange	65-61-2

4. First Aid Measures

Description of first aid measures

Inhalation	Move affected person to fresh air at once. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Not relevant.
Skin contact	Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention promptly if symptoms occur after washing.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause coughing or mild irritation.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
-----------------------------	------------------------------

5. Firefighting Measures

Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

Special hazards arising from the substance or mixture

Specific hazards Vapours/gases/fumes of: Hydrogen chloride (HCl). Oxides of the following substances: Carbon. Nitrogen.

Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust. Avoid contact with skin and eyes.

Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor.

Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

7. Handling and Storage

Precautions for safe handling

Usage precautions Do not handle broken packages without protective equipment.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container. Store at specified temperature. Refer to product label.

Storage class Refer to product datasheet.

Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/Personal Protection

Exposure controls

Protective equipment

Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.
Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Wash promptly with soap and water if skin becomes contaminated.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Not determined.
Odour	No characteristic odour.
Odour threshold	No information available.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	No information available.
Evaporation rate	Not applicable.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not determined.
Solubility(ies)	Soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	No unusual fire or explosion hazards noted.
Oxidising properties	Not determined.

Other information Other information None

10 Stability and Reactivity

Reactivity

Reactivity There are no known reactivity hazards associated with this product.

Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

Incompatible materials **Materials to avoid** Strong oxidising agents.

Hazardous decomposition products

Hazardous decomposition products Not known.

11. Toxicological Information

Information on toxicological effects

Toxicological effects	No information available.
Skin corrosion/irritation	
Extreme pH	
Serious eye damage/irritation	Not determined.
Germ cell mutagenicity	
Genotoxicity - in vitro	Not determined.
Genotoxicity - in vivo	Not determined.
Carcinogenicity	Not determined.
Reproductive toxicity - fertility	Not determined.
Specific target organ toxicity - single exposure	
STOT - single exposure	Not determined.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Not determined.
Aspiration hazard	Not determined.
General information	No specific health hazards known.
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
Ingestion	May cause discomfort if swallowed.
Skin contact	Liquid may irritate skin.
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.
Acute and chronic health hazards	Because of the product's quantity and composition, the health hazard is regarded as low.
Route of entry	Skin and/or eye contact
Medical symptoms	No specific symptoms noted.

12. Ecological Information

Toxicity

Acute toxicity - fish Not determined.

Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Mobility in soil

Mobility The product is soluble in water.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment No information available

Other adverse effects

Other adverse effects Not determined.

13. Disposal Considerations

Waste treatment methods

General information	When handling waste, the safety precautions applying to handling of the product should be considered.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport Information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
Road transport notes	Not classified.
Rail transport notes	Not classified.
Sea transport notes	Not classified.
Air transport notes	Not classified.

UN number Not applicable.

UN proper shipping name Not applicable.

Transport hazard class(es) Not applicable.

Packing group Not applicable.

Environmental hazards

Environmentally hazardous substance/marine pollutant No.

Special precautions for user Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory Information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.

Chemical safety assessment No chemical safety assessment has been carried out.

16. Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

Copyright © 2017 VitroVivo Biotech, LLC. All rights reserved. No part of these pages may be used for any purpose other than personal use. Therefore, reproduction, modification, storage in a retrieval system or retransmission, in any form or by any means, for reasons other than personal use, is strictly prohibited without prior written permission.