SECTION 1: IDENTIFICATION

1.1 Product identifier

Product Name	Matisse® Red Buffer

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	For research use only. Not for diagnostic use.

1.3 Details of the supplier of the data sheet

Company	Molecular Instruments, Inc. 5015 Eagle Rock Blvd Suite 301 Los Angeles, CA 90041
Telephone	+1 626 210 2600

SECTION 2. HAZARDS IDENTIFICATION

This safety data sheet complies with the requirements of Regulation EC 1907/2006.

2.1 Classification of the substance or mixture

GHS Classification

Health Hazards

Sensitization, Skin	Category 1, H317

2.2 Label elements including precautionary statements

Signal Word		Warning
Hazard Statements		
	H317	May cause an allergic skin reaction.
Precautionary Statements		
	P261	Avoid breathing vapors, mist, or spray.
	P272	Contaminated work clothing must not be allowed out of the workplace.
	P280	Wear protective clothing, eye protection, face protection.
	P302+P352	If on skin: Wash with plenty of water.
	P321	Specific treatment (see Section 4).
	P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
	P363	Wash contaminated clothing before reuse.
	P501	Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3 Other hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Characterization
Not applicable.

3.2 Dangerous Components

Chemical Name	CAS No	EINECS No	Weight %
Proprietary Ingredient A*	Proprietary	-	0.008-0.016
Proprietary Ingredient B*	Proprietary	-	0.0026-0.013

*The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.
Inhalation	When symptoms occur: go into open air and ventilate suspected area. Obtain medial attention if breathing difficulty persists.
Ingestion	Rinse mouth. Do not induce vomiting. Obtain medical attention.
Skin Contact	Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
Eye Contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information	Skin sensitization.
Inhalation	Prolonged exposure may cause irritation.
Ingestion	Ingestion may cause adverse effects.
Skin Contact	May cause an allergic skin reaction.
Eye Contact	May cause slight irritation to eyes.
Chronic Symptoms	None expected under normal conditions of use.

4.3 Indication of any immediate medical attention and special treatment needed.
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container at hand.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media	Water spray, dry chemical, foam, carbon dioxide (CO_2).
Unsuitable Extinguishing Media	Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2 Special hazards

Fire Hazard	Not considered flammable, but may burn at high temperatures.
Explosion Hazard	Product is not explosive.
Reactivity	Hazardous reactions will not occur under normal conditions.
Hazardous Combustion Products	Carbon oxides (CO, CO_2).

5.3 Advice for fire fighters

Precautionary Measures Fire	Exercise caution when fighting any chemical fire.
Firefighting Instructions	Use water spray or fog for cooling exposed containers.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.

5.4 Further information No data available.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General	Avoid breathing (vapor, mist, spray). Do not get in eyes, on skin, or on clothing.
For Non-Emergency Personnel	Use appropriate personal protective equipment (PPE). Evacuate unnecessary personnel.
For Emergency Personnel	Equip cleanup crew with proper protection. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2 Environmental Precautions

Prevent entry to sewers and public waters.

6.3 Methods and material for containment and clean up

Contain any spills with dikes or absorbments to prevent migration and entry into sewers or streams. Clean up spills immediately and dispose of waste safely. Transfer spilled materials to a suitable container for disposal. Contact competent authorities after a spill.

6.4 Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking, and when leaving work. Avoid prolonged contact with eyes, skin, and clothing. Avoid breathing vapors, mist, spray. Handle in accordance with good industrial hygiene and safety procedures.

7.2 Conditions for safe storage, including any incompatibles

Comply with applicable regulations. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers, weater-reactive materials.

7.3 Specific end use(s)

For research use only.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

Components	CAS No	Value type (Form of exposure)	Control parameters/Permissible concentration	Basis
Proprietary Ingredient B	Proprietary	TWA	250 ppm	USA ACGIH
		STEL	500 ppm	USA ACGIH
		ACGIH Chemical Category	Not classifiable as a human carcinogen.	USA ACGIH
		BEI	25 mg/l Parameter: Proprietary Ingredient B – Medium: urine – Sampling time: end of shift (nonspecidifc)	USA ACGIH
		TWA	590 mg/m^3 250 ppm	USA NIOSH
		IDLH	2500 ppm (10% LEL)	USA IDLH
		TWA	2400 mg/m^3 1000 ppm	USA OSH

8.2 Exposure controls

Appropriate Engineering Controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
Personal Protective Equipment	Gloves. Protective clothing. Protective goggles.
Materials for Protective Clothing	Chemically resistant materials and fabrics.
Hand Protection	Wear protective gloves.
Eye and Face Protection	Chemical safety goggles.
Skin and Body Protection	Wear suitable protective clothing.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known, wear approved respiratory protection.
Other Information	When using, do not eat, drink, or smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Liquid.

9.2 Other information

No data available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions will not occur under normal conditions.

10.2 Stability

Stable under recommended handling and storage conditions (see Section 7).

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5 Incompatible materials

Strong acids, strong bases, strong oxidizers, water-reactive materials.

10.6 Hazardous decomposition products

None expected under normal conditions of use.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity:	Not classified.

Proprietary Ingredient A

LD50 Oral Rat	120 mg/kg
LD50 Dermal Rabbit	200 mg/kg
LC50 Inhalation Rat	0.11 mg/l/4h
ATE (Dermal)	200.00 mg/kg body weight
ATE (Vapors)	0.11 mg/l/4h
ATE (Dust/Mist)	0.11 mg/l/4h

Proprietary Ingredient B

LD50 Oral Rat	5800 mg/kg
LD50 Dermal Rabbit	15688 mg/kg
LC50 Inhalation Rat	44 g/m^3

Skin Corrosion/Irritation	Not classified.
Serious Eye Damage/Irritation	May cause an allergic skin reaction.
Respiratory or Skin Sensitization	Not classified.
Germ Cell Mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive Toxicity	Not classified.
Specific Target Organ Toxicity (Single Exposure)	Not classified.
Specific Target Organ Toxicity (Repeated Exposure)	Not classified.
Aspiration Hazard	Not classified.

Principle Routes of exposure Potential Health Effects	
Inhalation	Prolonged exposure may cause irritation.
Ingestion	Ingestion may cause adverse effects.
Skin Contact	May cause an allergic skin reaction.
Eye Contact	May cause slight irritation to eyes.
Chronic Symptoms	None expected under normal conditions of use.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Ecology – General — Not classified.

Chemical Name	Freshwater Algae Data	Crustacea Data	Freshwater Fish Species Data
Proprietary Ingredient B	-	EC50: 1679.66 mg/L (48 h) (D. magna (static)) EC50: 12600 (12600-12700) mg/L (48 h) (D. magna)	LC50: 4144.846 mg/L (96 h) (O. mykiss) LC50: 6210 (6210-8120) mg/L (96 h) (P. promelas (static))

12.2 Persistence and degradability

Proprietary Ingredient B — Readily biodegradable in water.

12.3 Bioaccumulation potential

Proprietary Ingredient B

BCF Fish 1	0.69
Log Pow	-0.24
Log Kow	-0.24

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents/container in accordance with local, regional, national, and international regulations. Container may remain hazardous when empty. Continue to observe all precautions. Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1 UN number — Not applicable

14.2 UN proper shipping name — Not applicable

14.3 Transport hazard class(es) — Not applicable

14.4 Packaging group — Not applicable

14.5 Environmental hazards Not applicable

SECTION 15. REGULATORY INFORMATION

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

US Federal Regulations

SARA Section 311/312 Hazard Classes

Health hazard – Respiratory or skin sensitization

Proprietary Ingredient A

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

EPA TSCA Regulatory Flag	PMN SP – SP – indicates a substance that is identified in a proposed Significant New Uses Rule.

Proprietary Ingredient B

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

CERCLA RQ	5000 lb

US State Regulations

Proprietary Ingredient B	US Massachusetts – Right to Know List US New Jersey – Right to Know Hazardous Substance List US Pennsylvania – RTK (Right to Know) – Environmental Hazard List US Pennsylvania – RTK (Right to Know) List

15.2 Chemical safety assessment

No data available.

SECTION 16. OTHER INFORMATION

Other Information	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Disclaimer

The above information is believed to be correct but shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since Molecular Instruments, Inc. cannot control the actual methods, volumes, or conditions of use, Molecular Instruments, Inc. shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. The information in this safety data sheet (SDS) does not constitute a warranty, expressed or implied, including any implied warranty of merchantability or fitness for any particular purpose. See www.hcrimaging.com/legal/terms for our terms of sale.