SECTION 1: IDENTIFICATION

1.1 Product identifier

Product Name	Matisse® Red

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

Corrosive to metals	Category 1, H290
Skin corrosion/irritation	Category 1B, H314
Serious eye damage/eye irritation	Category 1, H318
Specific target organ toxicity (Single exposure); Respiratory tract irritation	Category 3, H335

2.2 Label elements including precautionary statements

Signal Word		Danger
Hazard Statements		
	H290	May be corrosive to metals.
	H314	Causes severe skin burns and eye damage.
	H335	May cause respiratory irritation.
Precautionary Statements		
	P234	Keep only in original packaging.
	P260	Do not breathe mist, vapors, spray.
	P264	Wash hands, forearms, and face thoroughly after handling.
	P271	Use only outdoors or in a well-ventilated area.
	P280	Wear protective clothing, eye protection, face protection.
	P301+P330+P331	If swallowed: Rinse mouth. Do not induce vomiting.
	P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center or doctor.
P312	Call a poison center or doctor if you feel unwell.
P321	Specific treatment (see supplemental first aid instruction).
P390	Absorb spillage to prevent material damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in a corrosion-resistant container with a resistant inner liner.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national, and/or international regulation.

2.3 Other hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, Annex XIII. The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Characterization

Not applicable.

3.2 Dangerous Components

Chemical Name	CAS No	EINECS No	Weight %
Hydrochloric acid	7647-01-0	231-595-7	98.5

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. If product is biologically contaminated, follow all institutional protocols concerning the potential release of pathogens.

Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	Rinse mouth. Do not induce vomiting. Obtain emergency medical attention.
Skin Contact	Immediately remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Get immediate medical advice/attention.
Eye Contact	Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

General information	May cause respiratory irritation. Causes severe skin burns and eye damage.
Inhalation	Irritation of the respiratory tract and the other mucous membranes. May be corrosive to the respiratory tract. May cause delayed pulmonary edema.
Ingestion	May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Skin Contact	Causes severe irritation which will progress to chemical burns.
Eye Contact	Causes permanent damage to the cornea, iris, or conjunctiva.
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, fog, carbon dioxide (CO_2), alcohol-resistant foam, or dry chemical.
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	Contact with metallic substances may release flammable hydrogen gas.
Reactivity	May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

Hazardous Combustion Products	Hydrochloric acid.

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	Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. If product is biologically contaminated, follow all institutional protocols concerning the potential release of pathogens.
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. Avoid release to the environment.

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. As an immediate precautionary measure, isolate spill or leak area in all directions. Clean up spills immediately and dispose of waste safely. Transfer spilled materials to a suitable container for disposal. Contact competent authorities after a spill. Absorb spillage to prevent material damage. Cautiously neutralize spilled liquid.

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

May be corrosive to metals. May release corrosive vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking, and when leaving work. Avoid contact with eyes, skin, and clothing. Handle empty containers with care because they may still present a hazard. Do not breathe mist, vapors, spray. Handle in accordance with good industrial hygiene and safety procedures.

7.2 Conditions for safe storage, including any incompatibles

Comply with applicable regulations. Store in accordance with applicable national storage class systems. 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. Store in corrosive resistant container with a resistant inner liner. Store in original container or corrosive resistant and/or lined container. Store locked up/in a secure area.

Incompatible Materials: Strong acids, strong bases, strong oxidizers. Limestone, marble, dolomite, and other carbonic minerals. Metals. May be corrosive to metals.

Packaging Materials: Store in corrosive resistant container with a resistant inner liner.

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
Hydrochloric acid	7647-01-0	TWA	8 mg/m^3 5 ppm	EU Austria Belgium Bulgaria Croatia Cyprus Estonia Gibraltar Ireland Italy Latvia Lithuania Luxembourg Malta Portugal Romania Slovakia Slovenia
		STEL	15 mg/m^3	EU

			10 ppm	Austria Belgium Bulgaria Croatia Cyprus Estonia Gibraltar Ireland Italy Lithuania Luxembourg Malta Romania Slovenia Spain
		Ceiling	8 mg/m^3 5 ppm	Denmark
		STEL	7.6 mg/m^3 5 ppm	Finland France
		TWA	3 mg/m^3 2 ppm	Germany
		TWA	7 mg/m^3 5 ppm	Greece
		STEL	7 mg/m^3 5 ppm	Greece
		TWA	8 mg/m^3	Hungary
		STEL	16 mg/m^3	Hungary
		Ceiling	2 ppm	USA ACGIH
		TWA	8 mg/m^3	Netherlands
		STEL	15 mg/m^3	Netherlands
		Ceiling	7 mg/m^3 5 ppm	Norway
		TWA	5 mg/m^3 10 mg/m^3	Poland
		Ceiling	2 ppm	Portugal
		Chemical Category (Legal Basis: Portuguese Norm NP 1796: 2014)	A4 – Not classifiable as a Human Carcinogen	Portugal
		TWA	7.6 mg/m^3 5 ppm	Spain
		TLV	3 mg/m^3 2 ppm	Sweden Switzerland
		STEL	6 mg/m^3 4 ppm	Sweden Switzerland

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. Insufficient ventilation: wear respiratory protection. Face shield. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.
Materials for Protective Clothing	Chemically resistant materials and fabrics. Corrosion-proof clothing.
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

May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or a base to an acid may cause a violent reaction.

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. Limestone, marble, dolomite, and other carbonic minerals. Metals. May be corrosive to metals.

10.6 Hazardous decomposition products

Thermal decomposition may produce: Hydrogen gas. Chlorine gas. Corrosive vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely Routes of Exposure:	Dermal, Eye Contact, Inhalation, Oral.
Acute Toxicity (Oral):	Not classified.
Acute Toxicity (Dermal):	Not classified.
Acute Toxicity (Inhalation):	Not classified.

Hydrochloric acid

LD50 Oral	238 mg/kg
LD50 Dermal Rabbit	> 5010 mg/kg
IARC Group	3

Skin Corrosion/Irritation	Causes severe burns.
Serious Eye Damage/Irritation	Causes serious eye damage.
Respiratory or Skin Sensitization	Not classified.
Germ Cell Mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive Toxicity	Not classified.
Specific Target Organ Toxicity (Single Exposure)	May cause respiratory irritation.
Specific Target Organ Toxicity (Repeated Exposure)	Not classified.
Aspiration Hazard	Not classified.

Principle Routes of exposure
Potential Health Effects

Inhalation	Irritation of the respiratory tract and the other mucous membranes. May be corrosive to the respiratory tract. May cause delayed pulmonary edema.
Ingestion	May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Skin Contact	Causes severe irritation which will progress to chemical burns.
Eye Contact	Causes permanent damage to the cornea, iris, or conjunctiva.
Chronic Symptoms	None expected under normal conditions of use.

11.2 Information on other hazards

Based on available data, this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the

criteria set out in Section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Hazardous to the Aquatic Environment, Short-Term (Acute)	Not classified.
Hazardous to the Aquatic Environment, Long-Term (Chronic)	Not classified.

Chemical Name	Freshwater Algae Data	Crustacea Data	Freshwater Fish Species Data
Hydrochloric acid	-	-	LC50: 7.45 mg/L (96 h) (O. mykiss)

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Does not contain any PBT/vPvB substances >=0.1% assessed in accordance with REACH Annex XVIII.

12.6 Endocrine disrupting properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in Section B of Regulation (EU) No. 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

12.7 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. Biologically contaminated materials should be incinerated. Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

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. In accordance with ADR/RID/IMDG/IATA/ADN.

14.1 UN number	UN1789
14.2 UN proper shipping name	Hydrochloric acid
14.3 Transport hazard class(es)	8
14.4 Packaging group	II
14.5 Environmental hazards	Not dangerous for the environment.
14.6 Special precautions for user	No data available.

No data available.

14.7 Maritime transport in bulk according to IMO instruments	Not applicable.

SECTION 15. REGULATORY INFORMATION

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

15.1.1 EU-Regulations

15.1.1.1 REACH Annex XVII Information

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No. 1907/2006:

Hydrochloric acid	3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No. 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9, and 3.10.

15.1.1.2 REACH Candidate List Information

Contains no substance on the REACH candidate list.

15.1.1.3 POP (2019/1021) – Persistent Organic Pollutants Information

Contains no substance subject to Regulation (EU) No. 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants.

15.1.1.4 PIC Regulation EU (649/2012) – Export and Import of Hazardous Chemicals Information
Contains no substance subject to Regulation (EU) No. 649/2012 of the Euoprean Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

15.1.1.5 REACH Annex XIV Information
Contains no REACH Annex XIV substances.

15.1.1.6 Substances Depleting the Ozone Layer (1005/2009) Information
No data available.

15.1.1.7 EC Inventory Information
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances).

15.1.1.8 Other Information
No data available.

15.1.2 National Regulations
No data available.

15.1.3 International Inventory Lists

Hydrochloric acid	Listed on the United States TSCA (Toxic Substances Control Act) inventory – Status: Active Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on the United States SARA Section 302 Listed on EPA Hazardous Air Pollutant (HAPS) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Japanese Poisonous and Deleterious Substances Control Law Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the TCSI (Taiwan Chemical Substance Inventory)

	Listed on the NCI (Vietnam – National Chemicals Inventory)

15.2 Chemical safety assessment

No data available.

SECTION 16. OTHER INFORMATION

Other Information	According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878.

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.