

SECTION 1: IDENTIFICATION

1.1 Product identifier

Product Name

Matisse® Brown

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

Germ cell mutagenicity

Category 2, H341

Carcinogenicity

Category 1B, H350

2.2 Label elements including precautionary statements



Signal Word

Danger

Hazard Statements

H341

Suspected of causing genetic defects.

H350

May cause cancer.

Precautionary Statements

P201

Obtain special instructions before use.

P202

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

P280

Wear protective clothing, eye protection, face protection.

P308+P313

IF exposed or concerned: Get medical advice/attention.

P405

Store locked up.

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. This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII. This 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 %
1,2-Propanediol substance with national workplace exposure limit(s) (GB, HR, IE, LT, LV, PL, NO)	57-55-6	200-338-0	15-16
3,3'-Diaminobenzidine tetrahydrochloride	7411-49-6	231-018-9	< 1

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. When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists. Rinse mouth. Do not induce vomiting. Obtain medical attention. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Inhalation

Ingestion

Skin Contact

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

Suspected of causing genetic defects. May cause cancer.

Inhalation

Prolonged exposure may cause irritation.

Ingestion

Ingestion may cause adverse effects.

Skin Contact

Prolonged exposure may cause skin irritation.

Eye Contact

May cause slight irritation to eyes.

Chronic Symptoms

Suspected of causing genetic defects. May cause cancer.

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 (CO₂).

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.

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 get in eyes, on skin, or on clothing. Do not breathe vapor, mist, or spray. 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.

6.3 Methods and material for containment and clean up

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area. 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

Handle in accordance with standard industrial practices, and ensure appropriate usage. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking, and when leaving work. Obtain special instructions before use. Do not breathe mist, vapor, spray. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. 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.

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

7.3 Specific end use(s)

For research use only. Not for diagnostic use.

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
1,2-Propanediol	57-55-6	TWA	474 mg/m ³ (total vapor and particles) 10 mg/m ³ (particles)	Croatia
		TWA	150 ppm 10 mg/m ³ (particulates) 470 mg/m ³ (total vapor and particulates)	Croatia Ireland
		TWA	150 ppm (total vapor and particulates)	Ireland
		STEL	1410 mg/m ³ (calculated particulates) 30 mg/m ³ (calculated) 450 ppm (calculated total vapor and particulates)	Ireland
		TWA	7 mg/m ³ 7 mg/m ³	Latvia Lithuania
		TWA	79 mg/m ³	Norway
		TWA STEL	25 ppm 118.5 mg/m ³ (value calculated)	Norway
		STEL	37.5 ppm	Norway
		TWA	100 mg/m ³ (vapor and inhalable fraction)	Poland

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

Materials for Protective Clothing
Hand Protection
Eye and Face Protection
Skin and Body Protection
Respiratory Protection

Other Information

Gloves. Protective clothing. Protective goggles.
Insufficient ventilation: wear respiratory protection. Personal protective equipment should be chosen in accordance with discussion with the supplier of the protective equipment.
Chemically resistant materials and fabrics.
Wear protective gloves.
Chemical safety goggles.
Wear suitable protective clothing.
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.
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

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

1,2-Propanediol

LD50 Dermal Rabbit	20800 mg/kg
LD50 Oral Rat	20 g/kg

Skin Corrosion/Irritation	Not classified.
Serious Eye Damage/Irritation	Not classified.
Respiratory or Skin Sensitization	Not classified.
Germ Cell Mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	May cause cancer.
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	Prolonged exposure may cause skin irritation.
Eye Contact	May cause slight irritation to eyes.
Chronic Symptoms	Suspected of causing genetic defects. May cause cancer.

11.2 Information on other hazards

Based on available data, this substance(s) 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

Chemical Name	Freshwater Algae Data	Crustacea Data	Freshwater Fish Species Data
1,2-Propanediol	NOEC = 1000 mg/l	EC50 = 10000 mg/l (24h) (D. magna) EC50 = 1000 mg/l (48 h) (D. magna (static)) NOEC = 1000 mg/l	LC50 = 51600 mg/l (96 h) (O. mykiss (static)) LC50 = 41-47 ml/l (96 h) (o. mykiss (static))

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

1,2-Propanediol:

BCF Fish 1 (1 dimensionless)

Partition coefficient: log Pow: -0.92

n-octanol/water

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Does not contain any PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XVIII.

12.6 Endocrine disrupting properties

Based on available data, this substance(s) 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.

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.

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

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:

3,3'-Diaminobenzidine tetrahydrochloride	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.
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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 European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous materials.

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 additional information available.

15.1.1.7 EC Inventory Information

3,3'-Diaminobenzidine tetrahydrochloride

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,2-Propanediol

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.1.8 Other Information

No additional information available.

15.1.2 National Regulations

No additional information available.

15.1.3 International Inventory Lists

3,3'-Diaminobenzidine tetrahydrochloride

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on the NCI (Vietnam - National Chemicals Inventory)

1,2-Propanediol

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 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)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
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.molecularinstruments.com/terms for our terms of sale.