

SECTION 1: IDENTIFICATION

1.1 Product identifier

Product Name Matisse® Green

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

Flammable liquid and vapor	Category 2, H225
Acute toxicity (Oral)	Category 3, H301
Acute toxicity (Dermal)	Category 3, H311
Acute toxicity (Inhalation)	Category 3, H331
Specific target organ toxicity (Single exposure)	Category 1, H370

2.2 Label elements including precautionary statements



Signal Word Danger

Hazard Statements

H225	Highly flammable liquid and vapor.
H301+H311+H331	Toxic if swallowed, in contact with skin, or if inhaled.
H370	Causes damage to organs (central nervous system, optic nerve) (oral).

Precautionary Statements

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233	Keep container tightly closed.

P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapors, mist, or spray.
P264	Wash hands, forearms, and other exposed areas thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, and eye protection.
P301+P310	If swallowed: Immediately call a poison center or doctor.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P307+P311	If exposed: Call a poison center/doctor.
P311	Call a poison center or doctor.
P312	Call a poison center or doctor if you feel unwell.
P321	Specific treatment (see Section 4 on this SDS).
P322	Specific treatment (see supplemental first aid instruction on this label).
P330	Rinse mouth.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use appropriate media (see Section 5) to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Characterization

Not applicable.

3.2 Dangerous Components

Chemical Name	CAS No	EINECS No	Weight %
Methanol	67-56-1	-	15-17

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

First, take proper precautions to ensure your own safety before attempting rescue (e.g., wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor.

Ingestion

Do not induce vomiting. Rinse mouth.

Skin Contact

Immediately call a poison center or doctor. Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Immediately call a poison center or doctor.

Eye Contact

Remove contact lenses, if present and easy to do. Continue rinsing. Immediately rinse with water for at least 15 minutes. Immediately call a poison center or doctor.

4.2 Most important symptoms and effects, both acute and delayed

General information

Causes damage to organs (central nervous system, optical nerve) (oral). Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death.

Inhalation

Ingestion

This material is toxic in small amounts orally, and can cause adverse health effects or death. According to the Center for Disease Control and Prevention, Methanol's toxicity is due to its

metabolic products. The by-products of methanol metabolism can cause an accumulation of acid in the blood (metabolic acidosis), blindness, and death. Initial adverse health effects due to methanol poisoning include drowsiness, a reduced level of consciousness (CNS depression), confusion, headache, dizziness, and the inability to coordinate muscle movement (ataxia). Other adverse health effects may include nausea, vomiting (emesis), and heart and respiratory (cardiopulmonary) failure. Prognosis is poor in patient/victims with coma or seizure and severe metabolic acidosis (pH < 7). Early on after methanol exposure, there may be a relative absence of adverse health effects. This does not imply insignificant toxicity. Methanol toxicity worsens as the degree of metabolic acidosis increases, and thus, becomes more severe as the time between exposure and treatment increases.

Skin Contact

This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes.

Eye Contact
Chronic Symptoms

May cause slight irritation to eyes.
Repeated exposure may cause dermatitis, skin dryness or cracking.

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

Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water may be ineffective but water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media

Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2 Special hazards

Fire Hazard

Highly flammable liquid and vapor. Vapors are heavier than air and may travel considerable

Explosion Hazard

Reactivity

distance to an ignition source and flash back to source of vapors.

May form flammable or explosive vapor-air mixture.

Reacts violently with strong oxidizers.

Increased risk of fire or explosion.

5.3 Advice for fire fighters

Precautionary Measures Fire

Firefighting Instructions

Protection During Firefighting

Hazardous Combustion Products

Exercise caution when fighting any chemical fire.

Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not enter fire area without proper protective equipment, including respiratory protection.

Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrogen chloride.

5.4 Further information

No data available.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General

For Non-Emergency Personnel

For Emergency Personnel

Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electrical charges.

Use appropriate personal protective equipment (PPE). Evacuate unnecessary personnel. Stop leak if safe to do so.

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. Eliminate ignition sources first, then ventilate the 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. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools.

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 empty containers with care because residual vapors are flammable. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking, and when leaving work. Do not breathe mist, spray, vapors. Avoid contact with eyes, skin, and clothing. Take precautionary measures against static discharge. Use only non-sparking tools. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety procedures.

7.2 Conditions for safe storage, including any incompatibles

Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials: Halogens. Reducing agents. Acids. Light metals and their alloys. Oxidizers.

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
Methanol	67-65-1	TWA	200 ppm	USA ACGIH
		STEL	250 ppm	USA ACGIH
		Chemical Category	Skin - potential significant contribution to overall exposure by the cutaneous route	USA ACGIH
		BLV	15 mg/l Parameter: Methanol Medium: Urine Sampling Time: End of Shift (background, nonspecific)	USA ACGIH
		TWA	260 mg/m ³	USA NIOSH
		TWA	200 ppm	USA NIOSH
		STEL	325 mg/m ³	USA NIOSH
		STEL	250 ppm	USA NIOSH
		IDLH	6000 ppm	USA IDLH
		TWA	260 mg/m ³	USA OSHA
		TWA	200 ppm	USA OSHA

8.2 Exposure controls

Appropriate Engineering Controls

Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Gas detectors should be used when toxic gases may be released. Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Face shield.

Personal Protective Equipment

Hand Protection
Eye and Face Protection
Skin and Body Protection
Respiratory Protection

Chemically resistant materials and fabrics. Wear fire/flammable resistant/retardant clothing.
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.

Other Information

Environmental Exposure Controls

Should not be released in the environment. Prevent product from entering drains.

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

Reacts violently with strong oxidizers. Increased risk of fire or explosion.

10.2 Stability

Highly flammable liquid and vapor. May form flammable or explosive vapor-air mixture.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

10.5 Incompatible materials

Halogens. Reducing agents. Acids. Light metals and their alloys. Oxidizers.

10.6 Hazardous decomposition products

Not expected to decompose under ambient conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity (Oral):	Toxic if swallowed.
Acute Toxicity (Dermal):	Toxic in contact with skin.
Acute Toxicity (Inhalation):	Toxic if inhaled.

Matisse® Green

ATE (Oral)	100.00 mg/kg body weight
ATE (Dermal)	300.00 mg/kg body weight
ATE (Vapors)	3.00 mg/l/4h

Methanol

ATE (Oral)	100.00 mg/kg body weight
ATE (Dermal)	300.00 mg/kg body weight
ATE (Vapors)	3.00 mg/l/4h
LD50 Dermal Rabbit	15840 mg/kg
LC50 Inhalation Rat	22500 ppm (Exposure time: 8h)

Skin Corrosion/Irritation	No data available.
Serious Eye Damage/Irritation	No data available.
Respiratory or Skin Sensitization	No data available.
Germ Cell Mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive Toxicity	No data available.
Specific Target Organ Toxicity (Single Exposure)	Causes damage to organs.
Specific Target Organ Toxicity (Repeated Exposure)	No data available.
Aspiration Hazard	No data available.

Principle Routes of exposure

Potential Health Effects

Inhalation	Inhalation of this material can cause serious health effects in small amounts, leading to unconsciousness and death.
Ingestion	This material is toxic in small amounts orally, and can cause adverse health effects or death. According to the Center for Disease Control and Prevention, Methanol's toxicity is due to its metabolic products. The by-products of methanol metabolism can cause an accumulation of acid in the blood (metabolic acidosis), blindness, and death. Initial adverse health effects due to methanol poisoning

include drowsiness, a reduced level of consciousness (CNS depression), confusion, headache, dizziness, and the inability to coordinate muscle movement (ataxia). Other adverse health effects may include nausea, vomiting (emesis), and heart and respiratory (cardiopulmonary) failure. Prognosis is poor in patient/victims with coma or seizure and severe metabolic acidosis (pH < 7). Early on after methanol exposure, there may be a relative absence of adverse health effects. This does not imply insignificant toxicity. Methanol toxicity worsens as the degree of metabolic acidosis increases, and thus, becomes more severe as the time between exposure and treatment increases.

Skin Contact

This material is toxic in small amounts through skin contact, and can cause adverse health effects or death. This material may be absorbed through the skin and eyes.

Eye Contact

May cause slight irritation to eyes.

Chronic Symptoms

Repeated exposure may cause dermatitis, skin dryness or cracking.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Chemical Name	Freshwater Algae Data	Crustacea Data	Freshwater Fish Species Data
Methanol	-	EC50 = 1340 mg/l	LC50 = 28200 mg/l (96 h) (P. promelas (flow-through)) LC50 = > 100 mg/l (96 h) (P. promelas (static))

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

Methanol:

BCF Fish 1 < 10
 Partition coefficient: log Pow: -0.77
 n-octanol/water

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. Handle empty containers with care because residual vapors are flammable. Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Proper Shipping Name	Methanol
Hazard Class	3
Subsidiary Risk(s)	6.1
Identification Number	UN1230
Label Codes	3, 6.1
Packing Group	II
ERG Number	131
EmS-No. (Fire)	F-E
EmS-No. (Spillage)	S-D
ERG Code (IATA)	3L

14.1 UN number	UN1230
14.2 UN proper shipping name	Methanol
14.3 Transport hazard class(es)	3
14.4 Packaging group	II
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

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

SARA 311/312

Health hazard – Specific target organ toxicity (single or repeated exposure)
 Physical hazard – Flammable (gases, aerosols, liquids, or solids)
 Health hazard – Acute toxicity (any route of exposure)

SARA 313 - Emission Reporting

Subject to reporting requirements of United States SARA Section 313
1%

CERCLA RQ

5000 lb

US State Regulations

Chemical Name	Massachusetts-RTK	Pennsylvania-RTK	New Jersey-RTK
Methanol	Listed	Environmental Hazard List	Hazardous Substance List

California Proposition 65

This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Chemical Name (CAS No.)	Carcinogenicity	Developmental Toxicity	Female Reproductive Toxicity	Male Reproductive Toxicity
Methanol (67-56-1)	-	X	-	-

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.molecularinstruments.com/terms for our terms of sale.