



Material Safety Data Sheet

Section 1: Product and Company Identification			
Product Name	Methylene Blue		
Catalogue Number:	ASC-1008	CAS Number:	61-73-4
E-mail:	Sales@ausamics.com	Website:	Ausamics.com

Section 2: Hazards Identification	
Classification: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)	
Acute oral toxicity	Category 4
Label Elements	
Signal Word	Warning 
Hazard Statements	Harmful if swallowed
Precautionary Statements	Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth
Disposal	Dispose of contents/container to an approved waste disposal plant.
Hazards not otherwise classified (HNOC)	None identified

Section 3: Composition / Information on Ingredients		
Component	CAS No	Weight %
Methylene blue trihydrate	7220-79-3	>95
Methylene blue	61-73-4	-

Section 4: First Aid Measures	
General Advice	If symptoms persist, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.



Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

Section 5: Firefighting Measures			
Suitable Extinguishing Media		Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.	
Unsuitable Extinguishing Media		No information available	
Flash Point		No information available	
Autoignition Temperature		No information available	
Explosion Limits Upper Lower Sensitivity to Mechanical Impact Sensitivity to Static Discharge		No data available No data available No information available No information available	
Specific Hazards Arising from the Chemical		Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.	
Hazardous Combustion Products		Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen chloride gas.	
Protective Equipment and Precautions for Firefighters		As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.	
NFPA			
Health	Flammability	Instability	Physical hazards
2	1	0	N/A

Section 6: Accidental Release Measures	
Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.



Section 7: Handling and storage	
Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.

Section 8: Exposure Controls / Personal Protection	
Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure Limits established by the region-specific regulatory bodies.
Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	No protective equipment is needed under normal use conditions.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties	
Physical State	Solid
Appearance	Dark green
Odor	Odorless
Odor Threshold	No information available
pH	3 - 4.5
Melting Point/Range	100 - 110 °C / 212 - 230 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid, gas)	No information available
Flammability or explosive limits Upper Lower	No data available No data available



Vapor Pressure	negligible
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	Slightly soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	190 °C
Viscosity	Not applicable
Molecular Formula	C ₁₆ H ₁₈ ClN ₃ S
Molecular Weight	373.89

Section 10: stability and Reactivity	
Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen chloride gas
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

Section 11: Toxicological Information			
Acute Toxicity Product Information Component Information			
Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methylene blue	LD50 = 1180 mg/kg (Rat)	Not listed	Not listed
Toxicologically Synergistic Products		No information available	
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Irritation		Irritating to eyes, respiratory system and skin	



Sensitization			No information available			
Carcinogenicity			The table below indicates whether each agency has listed any ingredient as a carcinogen.			
Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Methylene blue trihydrate	7220-79-3	Not listed	Not listed	Not listed	Not listed	Not listed
Methylene blue	61-73-4	Not listed	Not listed	Not listed	Not listed	Not listed
Mutagenic Effects			No information available			
Reproductive Effects			No information available			
Developmental Effects			No information available			
Teratogenicity			No information available			
STOT - single exposure			None known			
STOT - repeated exposure			None known			
Aspiration hazard			No information available			
Symptoms / effects, both acute and delayed			No information available			
Endocrine Disruptor Information			No information available			
Other Adverse Effects			The toxicological properties have not been fully investigated.			

Section 12: Ecological Information	
Ecotoxicity	Do not empty into drains.
Persistence and Degradability	Soluble in water Persistence is unlikely based on information available.
Bioaccumulation/ Accumulation	No information available.
Mobility	Will likely be mobile in the environment due to its water solubility.

Section 13: Disposal Consideration	
Waste Disposal Methods	Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.



Section 14: Transport Information	
DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

Section 15: Regulatory Information										
United States of America Inventory										
Component		CAS No		TSCA	TSCA Inventory notification - Active-Inactive			TSCA - EPA Regulatory Flags		
Methylene blue trihydrate		7220-79-3		-	-			-		
Methylene blue		61-73-4		X	ACTIVE			-		
Legend: TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710) X - Listed '-' - Not Listed										
TSCA 12(b) - Notices of Export					Not applicable					
International Inventories										
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).										
Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Methylene blue trihydrate	7220-79-3	-	-	-	-	-		-	-	-
Methylene blue	61-73-4	X	-	200-515-2	X	X		X	X	KE-06942
U.S. Federal Regulations										
SARA 313					Not applicable					
SARA 311/312 Hazard Categories					See section 2 for more information					
CWA (Clean Water Act)					Not applicable					
Clean Air Act					Not applicable					
OSHA - Occupational Safety and Health Administration					Not applicable					



CERCLA			Not applicable		
California Proposition 65			This product does not contain any Proposition 65 chemicals.		
U.S. State Right-to-Know Regulations					
Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene blue trihydrate	-	-	-	X	-
U.S. Department of Transportation					
Reportable Quantity (RQ)			N		
DOT Marine Pollutant			N		
DOT Severe Marine Pollutant			N		
U.S. Department of Homeland Security			This product does not contain any DHS chemicals.		
Other International Regulations					
Mexico - Grade			No information available		
Authorization /Restrictions according to EU REACH					
Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization		REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)	
Methylene blue	-		Use restricted. See item 75. (see link for restriction details)	-	
Safety, health, and environmental regulations/legislation specific for the substance or mixture					
Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Methylene blue trihydrate	7220-79-3	Not applicable	Not applicable	Not applicable	Not applicable
Methylene blue	61-73-4	Not applicable	Not applicable	Not applicable	Not applicable
Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)



		for Major Accident Notification	for Safety Report Requirements		
Methylene blue trihydrate	7220-79-3	Not applicable	Not applicable	Not applicable	Not applicable
Methylene blue	61-73-4	Not applicable	Not applicable	Not applicable	Not applicable

Section 16: Additional Notes	
Documented By	Ausamics Life Science Sales@Ausamics.com
Revision date	June 03, 2023
Summary of Revisions	This document has been revised to meet the requirements of the US OSHA HazCom 2012 Standard, which supersedes the existing regulations outlined in 29 CFR 1910.1200, in order to align with the internationally recognized globally Harmonized System of Classification and Labeling of chemicals (GHS).
Disclaimer	The information presented in this Safety Data sheet is accurate to the best of our knowledge, information, and belief at the time of publication. It is intended as a guide for the safe handling, use, processing, storage, transportation, disposal, and release of specific materials. However, it should be interpreted as a warranty or quality specification. The provided information pertains solely to the designated material and may not be applicable to its use in combination with other materials or in any process, unless explicitly stated in the text.