

MATERIAL SAFETY DATA SHEET

Methyl Green / 1st version (USA), July 14, 2003

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY		
Product Name:	Methyl Green AR107 / Methyl Green, Artisan®	
Chemical Name:	Methyl Green	
Company Identification:	DakoCytomation, Inc., 6392 Via Real, Carpinteria, California, 93013, United States. Tel. +805/566-6655, FAX +805/566-6688	
24-Hour Emergency Contact:	CHEMTREC +800/424-9300 (U.S.A. and Canada only) +703/527-3887 (all other countries)	
2. COMPOSITION/INFORMATION ON INGREDIENTS		
% / Chemical Name:	CAS# / EINECS#:	Hazard Classification:
0.05% / Methyl Green	7114-03-6 / 230-415-4	X _n : R36/37/38
0.05% / ProClin® 300	26172-55-4 / 247-500-7	X _n : R22-41
NOTE: This material is not classified as hazardous at product concentrations. In accordance with OSHA regulations and European Union Directives, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and is available for employees and other users of the product. The Hazard Classification listed in this section refers to the chemical at a pure concentration.		
3. HAZARDS IDENTIFICATION		
Potential Irritant Liquid.		
Skin Contact:	May cause irritation or allergic reaction.	
Eye Contact:	May cause drowsiness, gastritis, nausea, vomiting or central nervous system depression.	
Inhalation:	May cause irritation, drowsiness, gastritis, nausea, vomiting or central nervous system depression.	
Ingestion:	May cause drowsiness, gastritis, nausea, vomiting or central nervous system depression.	
4. EMERGENCY FIRST-AID MEASURES		
Skin:	Remove victim to nearest source of water. Remove contaminated clothing, blot excess chemical from skin and wash affected area under lukewarm water using a mild soap. Rinse for at least 20 minutes and blot dry. Seek immediate medical attention.	
Eye:	Remove victim to nearest source of water, blot excess chemical from face and gently rinse affected eye(s) with clean, lukewarm water for at least 20 minutes. In order to cleanse as much of the eye as possible, be sure to wash under eyelids. If worn, have victim remove contacts. Seek medical attention. If eyes are painful or sensitive to light, protect with a clean, loosely tied handkerchief or towel. Maintain physical and verbal contact with victim.	
Inhalation:	Remove victim to well-ventilated area. If victim is coughing or short of breath, loosen tight fitting clothing, have victim lie down and keep warm and calm. Oxygen may be given. Seek medical attention. If simply overwhelmed, loosen tight clothing, lie victim down, monitor pulse and keep warm and calm.	
Ingestion:	Remove victim to well-ventilated area. Seek immediate medical attention. If face is blue or breathing is labored, lay victim on back, open and clear airway and give oxygen. Keep victim warm and calm. If unconscious, lay victim on side, loosen tight clothing, give oxygen and monitor vital signs. If conscious, give water and have victim rinse mouth. Do not induce vomiting. If vomiting, have victim sitting up and leaning forward.	

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5. FIRE-FIGHTING MEASURES

Flash Point / Explosion Information: N/A / LEL: N/A UEL: N/A

Precautions During Fire: Avoid inhalation of toxic fumes. If possible, safely move container away from fire area.

Suitable Extinguishing Media: No restrictions. Use media appropriate to surrounding area.

Special Exposure Hazards: Combustion or decomposition of material may produce hazardous and/or irritating fumes. Hazardous polymerization will not occur.

Special Protective Equipment for Firefighters: Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Personal protective equipment and clothing is recommended during all cleanup procedures. Eliminate all ignition sources, stop or control leak. Refer to Section 8 for additional information on exposure controls and personal protective equipment.

Environmental Precautions: Do not allow into any body of water.

Methods for Cleanup: Avoid physical contact during removal. An approved respirator is recommended when irritant or nuisance vapors are produced. Absorb on earth, sand or vermiculite, and place in a closed container and hold for waste disposal. Absorbent pads or paper towels may be used for small spills of less than 1 liter. Ventilate area and wash spill site after material pickup is complete. Refer to Section 13 for complete disposal information.

7. HANDLING AND STORAGE

Keep containers tightly closed. Store at 2-8°C in a location protected from light. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Permissible Exposure Limit (OSHA TWA/TLV/STEL): Methyl Green: None identified.
ProClin[®] 300: None identified.

Precautionary Measures During Use: Avoid physical contact and prolonged or repeated exposures. A chemical fume hood is highly recommended. Do not breathe vapors if produced. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Mechanical exhaust is required.

Inhalation: Respiratory protection is highly recommended if irritating vapors are produced during routine usage of this product. Though it is not likely, if TWA or other exposure limits are exceeded during the usage of this material, attempt to reduce exposure levels to within an acceptable range. If this is not possible, use a NIOSH/MSHA-Approved respirator. Follow NIOSH/MSHA and equipment manufacturer's recommendations to determine appropriate equipment choice. Chemicals without established limits must also be considered when determining respiratory protection protocols.

Skin: Use chemically resistant gloves (e.g. rubber, plastic), lab coat with sleeves or rubber apron.

Eye: Splash-proof chemical safety goggles or face shield.

Other: Eye wash or safety shower.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green-blue liquid	Autoflammability: N/A
Odor: None	Oxidizing Properties: N/A
pH (as supplied): 7.0	Vapor Pressure (kPa): N/A
Boiling Point/Boiling Range: N/A	Relative Density (gm/mL @ 20°C): 1.003
Melting Point/Melting Range: >300°C	Water Solubility: Soluble
Flammability (liquid): NON-FLAMMABLE	Alcohol or Glycerol Solubility: N/A
% Volatiles by Volume: N/A	Evaporation Rate: N/A

10. STABILITY AND REACTIVITY

Stability: Stable when used appropriately.

Conditions to Avoid: None identified.

Materials to Avoid: Strong oxidizers.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide and hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION (dangerous-to-health effects)

Methyl Green: **Irritant.** No LD₅₀ / LC₅₀ information available in relation to normal routes of occupational exposure. Target organ(s): None identified.

ProClin[®] 300: **Corrosive. Toxic.** Ori-rat LD₅₀ = 3600 mg/kg. Target organ(s): None identified.

NOTE: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated at product concentrations.

12. ECOLOGICAL INFORMATION

Mobility: No information available.	Degradability: No information available.
Accumulation: No information available.	Other Hazardous Effects: No information available.
Ecotoxicity: No information available.	

13. DISPOSAL CONSIDERATIONS

Waste Management Information (Disposal): When disposing of the unused contents, the preferred options are to send to a licensed reclaimer, or permitted incinerators. Any disposal practice must be in compliance with local, state, and federal laws and regulations. Check with local and state regulations before dumping into sewers. Do not dump into any body of water.

14. TRANSPORT INFORMATION

IATA Classification: NOT RESTRICTED. When shipped alone or with other non-hazardous materials, the text "NOT RESTRICTED" should be included in the description on the Air Waybill to indicate that this mixture is not subject to IATA regulations, and has been checked. (4.1.3.3 / IATA Dangerous Goods Regulations 2003).

Proper Shipping Name: N/A	Packing Group# / PI#: N/A
Hazard Class#: N/A	UN#: N/A
ADR/RID: N/A	

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15. REGULATORY INFORMATION / LABELING

Contains: Chemical identification not required on label.

R-and S-phrases:

: "MSDS available to professional user on request."

Labeling Note: In accordance with EEC Directives 67/548/EEC and 88/379/EEC, this component/product is not subject to a hazard classification or labeling.

Hazard symbol(s):
NOT REQUIRED

Restrictions on Use: The product is for laboratory use only. The product must not be handled by persons under 18 years of age.

Training Provisions: The product should be handled only by technically qualified individuals experienced in handling potentially hazardous chemicals. The content of this Material Safety Data Sheet should also be known before use.

OSHA Status: In accordance with the OSHA Hazard Communication Standard, at product concentrations, the chemical components listed on this Material Safety Data Sheet are NOT classified as hazardous.

Toxic Substances Control Act (TSCA): This product complies with all TSCA inventory requirements.

California Proposition 65: The following statement is made in order to comply with the California State Drinking Water and Toxic Enforcement Act of 1986. **This product does NOT contain chemicals on California's listing of known or suspected carcinogens.**

Applicable Compliance Standards: This Material Safety Data Sheet is in compliance with the Federal Occupational Safety and Health Administration's Hazard Communication Standard [29 CFR 1910.1200 ET. SEQ.], and The Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 (European Community).

16. OTHER INFORMATION

User Note: The information in this Material Safety Data Sheet was obtained from sources, which we believe are reliable. However, the information is provided without any representation or warranty, express or implied, regarding its accuracy or correctness. Although certain hazards are described herein, we cannot state that these are the only hazards, which exist. Final determination of suitability and safe usage of this product is the sole responsibility of the user who is obligated to review this data in the specific context of the intended use and determine applicability.

Sources of Key Data: Material Safety Data Sheets from suppliers, the Sigma-Aldrich Library of Chemical Safety, Merck Index, Sax's Dangerous Properties of Industrial Materials, American Conference of Government Industrial Hygienists – 2002, and North American Emergency Response Guidebook.