MATERIAL SAFETY DATA SHEET

Date Printed: 09/27/2011 Date Updated: 09/15/2006 Version 1.0

	mpany Information			
Product Name Product Number Brand	N-METHYL GLYPHOSATE, 500MG, NEAT 44159-U SUPELCO			
Company Address	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 US 800-325-5832 800-325-5052 314-776-6555			
Technical Phone: Fax: Emergency Phone:				
Section 2 - Composition/In:	formation on Ingredient			
Substance Name METHYL GLYPHOSATE	CAS # SARA 313 24569-83-3 No			
Formula C4H10NO5P				
Section 3 - Hazards Identi:	fication			
HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0 NFPA RATING HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0				
	on toxicity, please refer to Section 11.			
Section 4 - First Aid Measu	ires			
ORAL EXPOSURE If swallowed, wash out a conscious. Call a physic	mouth with water provided person is			
	cian.			
	cian. resh air. If not breathing give If breathing is difficult, give oxygen.			
If inhaled, remove to fractificial respiration. DERMAL EXPOSURE	resh air. If not breathing give			

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS Flammable Hazards: Yes EXPLOSION DATA Dust Potential: This material, like most materials in powder form, is capable of creating a dust explosion. FLASH POINT 212.6 °F 100.3 °C AUTOIGNITION TEMP N/A FLAMMABILITY N/A EXTINGUISHING MEDIA Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. FIREFIGHTING Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Flammable solid. Emits toxic fumes under fire conditions. Section 6 - Accidental Release Measures PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL Evacuate area. Shut off all sources of ignition. PROCEDURE(S) OF PERSONAL PRECAUTION(S) Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. METHODS FOR CLEANING UP Avoid raising dust. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete. Section 7 - Handling and Storage HANDLING User Exposure: Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. STORAGE Suitable: Keep container closed. Keep away from heat, sparks, and open flame. Store at 2-8°C Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required. PERSONAL PROTECTIVE EQUIPMENT Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Hand: Compatible chemical-resistant gloves. Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES Wash thoroughly after handling. Wash contaminated clothing before reuse.

Appearance	Physical State: Solid			
Property	Value	At	Temperature or H	Pressure
Molecular Weight	183.101 AMU			
pH	N/A			
BP/BP Range	427.9 °C			
MP/MP Range	230 °C			
Freezing Point	N/A			
Vapor Pressure	1.61 mmHg	25	°C	
Vapor Density	N/A			
Saturated Vapor Conc.	N/A			
SG/Density	1.583 g/cm3			
Bulk Density	N/A			
Odor Threshold	N/A			
Volatile%	N/A			
VOC Content	N/A			
Water Content	N/A			
Solvent Content	N/A			
Evaporation Rate	N/A			
Viscosity	N/A			
Surface Tension	N/A			
Partition Coefficient	N/A			
Decomposition Temp.	N/A			
Flash Point	212.6 °F 100.3 °C			
Explosion Limits	N/A			
Flammability	N/A			
Autoignition Temp	N/A			
Refractive Index	N/A			
Optical Rotation	N/A			
Miscellaneous Data	N/A			
Solubility	N/A			

Section 9 - Physical/Chemical Properties

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide,

and nitrogen oxides, Phosphorous oxides.

HAZARDOUS POLYMERIZATION Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE Skin Contact: Causes skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: Causes eye irritation. Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Flammable solids, organic, n.o.s. UN#: 1325 Class: 4.1 Packing Group: Packing Group III Hazard Label: Flammable solid PIH: Not PIH

IATA

Proper Shipping Name: Flammable solid, organic, n.o.s. IATA UN Number: 1325 Hazard Class: 4.1 Packing Group: III

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION Symbol of Danger: F-Xi Indication of Danger: Highly Flammable. Irritant. R: 11-36/37/38 Risk Statements: Highly flammable. Irritating to eyes, respiratory system and skin. S: 26 Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

US CLASSIFICATION AND LABEL TEXT Indication of Danger: Flammable (USA) Highly Flammable (EU).

Irritant. Risk Statements: Irritating to eyes, respiratory system and skin. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. UNITED STATES REGULATORY INFORMATION SARA LISTED: No CANADA REGULATORY INFORMATION WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR. DSL: No NDSL: No Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2010 Sigma-Aldrich Co. License granted to make unlimitedpaper copies for internal use only.