



## Safety Data Sheet

Material Name: Elmer's Boardmate Metallic Markers

SDS ID: SDS-55

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### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

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**Material Name**

Elmer's Boardmate Metallic Markers

**Synonyms**

E3045M

**Product Use**

Arts and Crafts

**Restrictions on Use**

None known

**Manufacturer Information**

Elmer's Products, Inc  
460 Polaris Parkway, Suite 500  
Westerville, OH 43082  
USA  
Phone:1-888-435-6377  
Fax:1-800-741-6046  
Email:comments@elmers.com

Emergency Phone Number:  
Poison Control Center  
1-888-516-2502

For additional product information, access our website at [www.elmers.com](http://www.elmers.com). To place an order, call 1-800-848-9400.

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### Section 2 - HAZARDS IDENTIFICATION

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**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

Serious Eye Damage/Eye Irritation - Category 2A

Reproductive Toxicity - Category 1B

Specific Target Organ Toxicity - Single Exposure - Category 1 ( central nervous system, heart, kidneys, respiratory system )

Specific Target Organ Toxicity - Repeated Exposure - Category 1 ( central nervous system, heart, respiratory system, kidneys, lungs )



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### GHS Label Elements

#### Symbol(s)



#### Signal Word

Danger

#### Hazard Statement(s)

Causes serious eye irritation

May damage fertility or the unborn child

Causes damage to organs

Causes damage to organs through prolonged or repeated exposure

#### Precautionary Statement(s)

##### Prevention

Obtain special instructions before use

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

Wear eye protection/face protection

Do not breathe dust/fume/gas/mist/vapours/spray

Wash thoroughly after handling

Do not eat, drink or smoke when using this product

##### Response

If exposed: Call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

Get medical advice/attention if you feel unwell

Specific treatment (see label)

##### Storage

Store locked up

##### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations

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### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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CAS	Component Name	Percent
107-21-1	Ethylene glycol	0-25
7429-90-5	Aluminum powder	2.5-10



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### Section 4 - FIRST AID MEASURES

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#### Description of Necessary Measures

IF exposed or concerned: Call a POISON CENTER or doctor/physician.

#### Inhalation

If adverse effects occur, remove to uncontaminated area. If discomfort persists, contact a physician.

#### Skin

If on skin, wash immediately with plenty of soap and water. Get medical attention if irritation develops.

#### Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### Ingestion

Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsive person. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Get medical attention immediately.

#### Most Important Symptoms/Effects

##### Acute

Causes serious eye irritation. Causes damage to central nervous system, heart, kidneys, respiratory system.

##### Delayed

May damage fertility or the unborn child. Causes damage to central nervous system, heart, kidneys, lungs, respiratory system.

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### Section 5 - FIRE FIGHTING MEASURES

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#### Extinguishing Media

##### Suitable Extinguishing Media

Use carbon dioxide, regular dry chemical, regular foam or water.

##### Unsuitable Extinguishing Media

None known

#### Special Hazards Arising from the Chemical

Slight fire hazard.

#### Hazardous Combustion Products

oxides of carbon

#### Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.



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### Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

### Methods and Materials for Containment and Cleaning Up

Stop leak if possible without personal risk. Absorb with earth, sand or other non-combustible material and transfer to container. Collect spilled material in appropriate container for disposal.

### Environmental Precautions

Prevent entry into waterways, sewers, basements, or confined areas.

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## Section 7 - HANDLING AND STORAGE

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### Precautions for Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

### Conditions for Safe Storage, Including any Incompatibilities

Store locked up

### Incompatible Materials

Strong oxidizer

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Component Exposure Limits

Ethylene glycol	107-21-1
ACGIH:	100 mg/m <sup>3</sup> Ceiling aerosol only
Europe:	20 ppm TWA; 52 mg/m <sup>3</sup> TWA
	Possibility of significant uptake through the skin
	40 ppm STEL; 104 mg/m <sup>3</sup> STEL
Mexico:	100 mg/m <sup>3</sup> Ceiling aerosol
Aluminum powder	7429-90-5



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ACGIH:	1 mg/m <sup>3</sup> TWA respirable fraction
NIOSH:	10 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable dust
OSHA (US):	15 mg/m <sup>3</sup> TWA total dust; 5 mg/m <sup>3</sup> TWA respirable fraction
Mexico:	10 mg/m <sup>3</sup> TWA LMPE-PPT dust

### Biological limit value

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide local exhaust ventilation system. Ensure adequate ventilation.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face protection

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

#### Skin Protection

Wear appropriate chemical resistant clothing.

#### Respiratory Protection

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

#### Glove Recommendations

Wear appropriate chemical resistant gloves.

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance</b>	colored liquid	<b>Physical State</b>	liquid
<b>Odor</b>	Not available	<b>Color</b>	various colors
<b>Odor Threshold</b>	Not available	<b>pH</b>	7.7 - 9.5
<b>Melting Point</b>	Not available	<b>Boiling Point</b>	100 °C
<b>Freezing point</b>	Not available	<b>Evaporation Rate</b>	Not available
<b>Boiling Point Range</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition</b>	410 C	<b>Flash Point</b>	111 °C
<b>Lower Explosive Limit</b>	3.2 Vol %	<b>Decomposition</b>	Not available
<b>Upper Explosive Limit</b>	53 Vol %	<b>Vapor Pressure</b>	23 hPa [@ 20 °C] (17 mm Hg)
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity (water=1)</b>	Not available



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<b>Water Solubility</b>	Fully Miscible	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	8 - 13 mPas (@ 20 °C)	<b>Solubility (Other)</b>	Not available
<b>Density</b>	1.078 - 1.11 g/cm <sup>3</sup>	<b>Physical Form</b>	liquid

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### Section 10 - STABILITY AND REACTIVITY

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#### Reactivity

No reactivity hazard is expected.

#### Chemical Stability

Stable under normal conditions of use.

#### Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition.

#### Incompatible Materials

Strong oxidizer

#### Hazardous decomposition products

oxides of carbon, oxides of aluminum

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### Section 11 - TOXICOLOGICAL INFORMATION

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#### Information on Likely Routes of Exposure

##### Inhalation

No information on significant adverse effects.

##### Skin Contact

No information on significant adverse effects.

##### Eye Contact

Causes serious eye irritation.

##### Ingestion

No information on significant adverse effects.

#### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:



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Ethylene glycol (107-21-1)  
Oral LD50 Rat 4000 - 10200 mg/kg  
Dermal LD50 Rat 10600 mg/kg

### **Immediate Effects**

Causes serious eye irritation. Causes damage to central nervous system, heart, kidneys, respiratory system.

### **Delayed Effects**

May damage fertility or the unborn child. Causes damage to central nervous system, heart, kidneys, lungs, respiratory system.

### **Irritation/Corrosivity Data**

Causes serious eye irritation.

### **Respiratory Sensitization**

No information available for the product.

### **Dermal Sensitization**

No information available for the product.

### **Component Carcinogenicity**

Ethylene glycol	107-21-1
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
Aluminum powder	7429-90-5
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

### **Germ Cell Mutagenicity**

No information available for the product.

### **Reproductive Toxicity**

May damage fertility or the unborn child.

### **Specific Target Organ Toxicity - Single Exposure**

Respiratory system, central nervous system, heart, kidneys

### **Specific Target Organ Toxicity - Repeated Exposure**

Respiratory system, central nervous system, heart, lungs,

### **Aspiration hazard**

No information available for the product.

### **Medical Conditions Aggravated by Exposure**

No data available.



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### Section 12 - ECOLOGICAL INFORMATION

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#### Component Analysis - Aquatic Toxicity

Ethylene glycol	107-21-1
Fish:	LC50 96 h Oncorhynchus mykiss 41000 mg/L; LC50 96 h Oncorhynchus mykiss 14 - 18 mL/L [static]; LC50 96 h Lepomis macrochirus 27540 mg/L [static]; LC50 96 h Oncorhynchus mykiss 40761 mg/L [static]; LC50 96 h Pimephales promelas 40000 - 60000 mg/L [static]; LC50 96 h Poecilia reticulata 16000 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 6500 - 13000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 46300 mg/L IUCLID

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### Section 13 - DISPOSAL CONSIDERATIONS

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#### Disposal Methods

Dispose in accordance with all applicable regulations.

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### Section 14 - TRANSPORT INFORMATION

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#### US DOT Information:

UN/NA #: Not Regulated

#### TDG Information:

UN#: Not Regulated

#### IATA Information:

UN#: Not Regulated

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### Section 15 - REGULATORY INFORMATION

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#### U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Ethylene glycol	107-21-1
SARA 313:	1 % de minimis concentration





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CERCLA:	5000 lb final RQ; 2270 kg final RQ
Aluminum powder	7429-90-5
SARA 313:	1 % de minimis concentration (dust or fume only)

**SARA Section 311/312 (40 CFR 370 Subparts B and C)**

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactivity:** No

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Ethylene glycol	107-21-1	Yes	Yes	Yes	Yes	Yes
Aluminum powder	7429-90-5	Yes	Yes	Yes	Yes	Yes

**Not listed under California Proposition 65**

**Canadian WHMIS Ingredient Disclosure List (IDL)**

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Ethylene glycol	107-21-1
	1 %
Aluminum powder	7429-90-5
	1 %

**Component Analysis - Inventory**

Ethylene glycol (107-21-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Aluminum powder (7429-90-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes



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### Section 16 - OTHER INFORMATION

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#### HMIS Rating

Health: 2 Fire: 1 Reactivity: Not available Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

#### NFPA Ratings

Health: 2 Fire: 1 Reactivity: Not available Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

#### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

#### Other Information

##### Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.