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### Section 1. Supplier Information

**CMI Chemical Corporation**  
12336 Emerson Drive  
Brighton, MI 48116  
(248) 587-5600  
**Emergency Telephone: 1-800-424-9300**

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### Section 2. Hazardous Ingredients

<u>Hazardous Component(s)</u>	<u>CAS #</u>	<u>PEL TWA</u>	<u>PEL Ceiling</u>	<u>TLV TWA</u>	<u>TLV STEL</u>	<u>MFG Limits</u>	<u>WGT %</u>
Phosphoric acid ester	Proprietary	N/E	N/E	N/E	N/E	N/E	< 3
2-Butoxyethanol	111-76-2	50 ppm#	N/E	25 ppm#	N/E	25 ppm#	< 5

N/A = Not Applicable; N/E = Not Established; \* = Mists; # = Skin; ' = Respirable Dust; " = Total Dust; ^ = Vapor; \*\* = Fumes; C = Ceiling Limit

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All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory and the Canadian Domestic Substances List (DSL), or are exempt from the listing.

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### Section 3. Hazards Identification

#### Primary Routes of Entry

Inhalation: YES  
Skin: YES  
Ingestion: YES

#### Hazardous Materials Information System (HMIS) Ratings

Health:	1	0 = Minimal
Fire:	0	1 = Slight
Reactivity:	0	2 = Moderate
		3 = Serious
		4 = Severe
		* = Chronic Hazard

#### Signs of Symptoms of Exposure:

**INHALATION:** No effects of exposure expected. At very high concentrations only, this product may cause headache, nose and throat irritation, nausea and/or mental confusion.

**SKIN:** Prolonged or repeated contact can cause irritation.

**EYES:** Vapors are slightly uncomfortable. Splashes can be irritating, will cause painful burning or stinging of eyes and lids, watering of eyes and inflammation of conjunctiva.

**INGESTION:** Ingestion of large amounts causes gastric disturbances. Nausea and vomiting may result.

#### Chemical Listed as Potential Carcinogens:

NTP: NO

IARC: NO

OSHA: NO

Target Organs: Skin, eyes, and respiratory system.

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### Section 4. Emergency And First Aid Procedures

**INHALATION:** If adverse effects such as dizziness, nausea, or irritation are noted, move person

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to fresh air. If not breathing, give artificial respiration. Get medical attention!

SKIN: Immediately wash skin with large amounts of soap and water. Remove contaminated clothing and shoes; wash before reuse. Get medical attention if irritation persists after washing.

EYES: Flush eyes immediately with water for at least 15 minutes. If irritation persists, call a physician.

INGESTION: Call a physician or emergency medical facility immediately!

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#### **Section 5. Fire Fighting Measures**

Flash Point: None to boiling. Method Used: Tagliabue Closed Cup

Flammable Limits in Air % by Volume: LEL: N/E UEL: N/E

Extinguisher Media: Use media most appropriate for surrounding fire.

Special Fire Fighting Procedures: Wear a self-contained breathing apparatus when fighting fire in an enclosed area.

Unusual Fire And Explosion Hazards: Low fire hazard when exposed to heat and flame. Product is not flammable or combustible.

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#### **Section 6. Accidental Release Measures**

If material is spilled, absorb with sand, earth, or similar inert material. Place in closed, labeled containers for proper disposal.

CERCLA (Superfund) Reportable Quantity (in lbs N/A)

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#### **Section 7. Handling and Storage**

Handling: Avoid contact with skin and eyes; wash thoroughly after handling. Avoid breathing vapor; use with adequate ventilation.

Storage: KEEP FROM FREEZING! Store in a dry location at room temperature. Keep container closed and maintain all original markings and labels.

Other: Do not reuse container without recycling or reconditioning. Handle empty containers as if they were full.

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#### **Section 8. Exposure Controls and Personal Protection**

Respiratory Protection: Use NIOSH / MSHA approved respirator where high vapor or mist concentrations are present.

Local Exhaust: None normally required. Local exhaust may be needed under special circumstances such as poorly ventilated areas, evaporation from large surfaces, spraying, heating, etc.

Mechanical Exhaust: Mechanical ventilation should be sufficient to maintain exposure levels below exposure limits.

Protective Gloves: Wear chemical resistant gloves.

Eye Protection: At a minimum, wear safety glasses with side shields.

Other Protection: Eye wash and safety shower should be readily available.

Hygienic Practices: Avoid contact with skin and avoid breathing vapors or mist. Do not eat, drink, or smoke while using this product. Wash up prior to eating, drinking, or using the restroom.

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#### **Section 9. Physical and Chemical Properties**

Boiling Point: > 212 ° F

Degree of water solubility: ...

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Specific Gravity (H <sub>2</sub> O=1):	1.00-1.01	Negligible = Less than 0.1%
Vapor Pressure (mm Hg):	Similar to water.	Slight = 0.1% - 1%
Vapor Density (air=1)	Similar to water.	Moderate = 1% - 10%
Solubility in Water:	Complete.	Appreciable = More than 10%
Reactivity in Water:	None.	Complete = 100%
Weight per Gallon (lb/gal):	8.3 - 8.5 lbs/gal	
% Volatile by Volume:	> 96	
% Solid by Weight:	< 4	
Appearance and Odor:	Clear, pink liquid with a berry odor.	
Theoretical VOC: (>0.1 mm Hg @ 20 ° C)	N/E	
Analytical VOC : (EPA method 24)	0.5 - 0.7 lbs/gal	
pH:	6.1 - 6.6	

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### Section 10. Stability and Reactivity

Stability: Stable. Hazard Polymerization:  
Conditions to Avoid: None known.  
Incompatibility (Materials to Avoid):  
Hazardous Decomposition Products:

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### Section 11. Toxicological Information

2-butoxyethanol [CASRN 000111-76-2]

#### ACUTE TOXICITY

Oral LD50 (guinea pig) = 1.4 g/kg Eye irritation (rabbit): severe.  
Dermal LD50 (guinea pig) > 2 g/kg Skin irritation (rabbit): moderate.  
Inhalation LC50 (guinea pig) > 633 ppm, 1 hr

Reproductive and Developmental Toxicity: Inhalation exposure of pregnant rabbits caused some lethality to the dam and fetus at 200 ppm, but there were no effects at 100 ppm and below. In another study by the same route irritancy was noted in the dams and a related fetotoxicity was observed at 100 and 200 ppm, but there were no effects 50 ppm and below. Birth defects were not noted in either study.

Other Testing: Exposure of rats by inhalation to 2-butoxyethanol caused hemolysis, hemoglobinuria (blood in the urine) and a slight increase in liver weight. Other species, including man, were much less sensitive to hemolysis. The hemolytic effect seen in rats was transitory and/or reversible and not considered to be relevant to human health.

Carcinogenicity: The National Toxicology Program (NTP, 1998) has conducted lifetime inhalation bioassays in rats and mice at concentrations up to 125 ppm and 250 ppm 2-butoxyethanol, respectively. NTP found no evidence of carcinogenic activity in male rats, equivocal evidence in female rats based on adrenal tumors, and some evidence in male and female mice based on liver hemangiosarcoma and forestomach tumors. The relevance of these findings to humans is questionable. NTP concludes that the human carcinogenic potential of this material cannot be determined at this time. [18,7-1,14-082400]

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**Section 12. Ecological Information**

2-butoxyethanol [CASRN 000111-76-2]

**ECOTOXICITY**

48 h LC50 (Daphnia) > 1,000 mg/l    24 h TLm Brine shrimp = 1,000 mg/l  
96 h LC50 Fathead minnow = 1,700 mg/l    IC50 bacteria > 5,000 mg/l

**DEGRADATION**

BOD 5 = 26 % (O2 consumption)    COD (measured) = 2.25 mg/mg  
BOD10 = 74 %    ThOD (calculated) = 2.10 - 2.30 mg/mg  
BOD20 = 88 %    Kow (measured) = 0.83  
28 d Sturm test = 90% (CO2 evolved)    [20,2-1,2,18-011701]

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**Section 13. Disposal Considerations**

Waste Disposal Methods (Federal, State, Local):

In accordance with all federal, state and local requirements.

RCRA Hazardous Waste Number: N/A

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**Section 14. Transport Information**

Hazardous Material Description:

(Proper shipping name, hazard class, hazard ID#, packing group)

Domestic ground non-bulk: NOT REGULATED

Domestic ground bulk: NOT REGULATED

International: NOT REGULATED

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**Section 15. Regulatory Information**

SARA 313 Information

This product contains the following chemical(s) above de minimis concentrations and may be subject to reporting under section 313:

Reportable category, Certain glycol ethers, < 5%

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**Section 16. Other Information**

This MSDS contains revisions in the following sections: New format

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Revised by: Andrew J. Thomas    Chemist

The development of this Material Safety Data Sheet (MSDS) relies upon information provided to us by each of our raw material suppliers. This MSDS will be updated as changes occur to their MSDS(s).

We believe the recommendations and technical information contained herein to be accurate. However, they are given without warranty or guarantee, expressed or implied, and we assume no responsibility for losses or damage, direct or indirect, as a result of their use.