

Ergon Armor      **Revision Number:** 2.000  
**Issue Date:** 01/17/2012

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** PENNGUARD® BLOCK WASH PRIMER - PART B      **ID(s):**  
**Product type:** Primer (part B of two-part system)      **Region:** United States  
**Company address:** Ergon Armor  
Corrosion Engineering  
300 Stevens Drive, Suite 310  
Lester, PA 19113  
**Contact information:**  
Telephone: 610.833.4000  
Emergency: Call CHEMTREC at 800.424.9300  
Internet: www.Ergon.com

**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**Physical state:** Liquid  
**Color:** Clear  
**Odor:** Solvent

**HMIS:**

HEALTH: 2  
FLAMMABILITY: 3  
PHYSICAL HAZARD: 0  
Personal Protection: See MSDS section 8

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe  
\* = Chronic Health Hazard

WARNING! FLAMMABLE LIQUID AND VAPOR. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. INHALATION OF HIGH VAPOR CONCENTRATIONS MAY PRODUCE RESPIRATORY IRRITATION, AND MAY CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION

**Relevant routes of exposure:** Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material.

**Potential Health Effects**

**Inhalation:** Moderately irritating to respiratory tract. High vapor concentrations may be irritating to the respiratory tract, and may result in central nervous system (CNS) effects such as headache, dizziness, nausea, drowsiness and, in severe exposures, loss of consciousness and death.

**Skin contact:** Moderately irritating to skin. Repeated exposure may cause allergic skin reaction. Prolonged or repeated contact may remove oils from the skin and may dry skin and cause irritation, redness and rash.

**Eye contact:** Moderately irritating to eyes. High vapor concentrations may be irritating to the eyes.

**Ingestion:** If swallowed, this material may cause nausea, vomiting and signs of CNS depression as noted above. Mild to severe lung injury can/may occur if this material is drawn into the lungs (aspirated) during swallowing, or during vomiting after swallowing. Symptoms of injury may include increased breathing and heart rate, coughing and related signs of respiratory distress.

**Existing conditions aggravated by exposure:** NONE LISTED

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**See Section 11 for additional toxicological information.**

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS-No.	%
2-Propanol, 1-methoxy-, acetate	108-65-6	>60
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	88917-22-0	10-30
Ethanol	64-17-5	10-30
Phosphoric acid	7664-38-2	1-10
Butanol	78-92-2	1-10

### 4. FIRST AID MEASURES

- Inhalation:** IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Skin contact:** IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
- Eye contact:** IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention.
- Ingestion:** IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

### 5. FIRE FIGHTING MEASURES

- Flash point:** 78 F/ 26 C (TAG CC)
- Autoignition temperature:** NE
- Flammable/Explosive limits - lower:** 36.5%
- Flammable/Explosive limits - upper:** 1.3%
- Extinguishing media:** Use water fog, carbon dioxide, dry chemical, or foam
- Special firefighting procedures:** *Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.*
- Fire or explosion hazards:** Closed containers of this material may explode when subjected to heat from surrounding fire. Cool exposed containers with water.
- Hazardous combustion products:** Oxides of carbon.

### 6. ACCIDENTAL RELEASE MEASURES

**Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.**

- In case of spill or leak:** Extinguish or turn off all ignition sources. Ventilate the space involved. Wear appropriate personal protection equipment as indicated in Section 8 of this MSDS. Contain spill with inert materials. Construct a dike to prevent spreading. Collect with non-sparking tools to a suitable container. Prevent waterway contamination. Absorb liquid onto inert absorbent and place in DOT approved drums for disposal.

*Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.*

**7. HANDLING AND STORAGE**

**Handling:** Do not taste or swallow. Do not get in eyes, on skin or clothing. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat, sparks and flames. Use grounding and bonding connection when transferring material to prevent static discharges, fire or explosion.

**Storage:** Store away from excessive heat, from sources of ignition and from reactive materials. Ground all metal containers during storage. Limit indoor storage to areas equipped with appropriate automatic sprinkler system. Shock sensitive material; do NOT drop or drag containers. Material should be stored in closed containers, in a secure area.

**For information on product shelf life, please review labels on container or check the Technical Data Sheet.**

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.**

<b>Hazardous components</b>	<b>ACGIH TLV</b>	<b>OSHA PEL</b>	<b>AIHA WEEL</b>	<b>NIOSH REL</b>
2-Propanol, 1-methoxy-, acetate	NE	NE	50 ppm - 8hr TWA	NE
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, Ethanol	NE	NE	NE	NE
Ethanol	1000 ppm, 1880 mg/m <sup>3</sup> TWA; Appendix A4 - Not Classifiable as a Human Carcinogen (Listed under Ethanol)	1000 ppm, 1900 mg/m <sup>3</sup> TWA	NE	1000 ppm, 1900 mg/m <sup>3</sup> TWA
Phosphoric acid	1 mg/m <sup>3</sup> TWA; 3 mg/m <sup>3</sup> STEL	1 mg/m <sup>3</sup> TWA	0	1 mg/m <sup>3</sup> TWA; 3 mg/m <sup>3</sup> STEL
Butanol	100 ppm, 303 mg/m <sup>3</sup> TWA - listed under sec-Butanol	150 ppm, 450 mg/m <sup>3</sup> TWA	NE	100 ppm, 305 mg/m <sup>3</sup> TWA; 150 ppm, 455 mg/m <sup>3</sup> STEL

**Engineering controls:** Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (listed above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

**Respiratory protection:** Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

- Eye/face protection:** Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.
- Skin protection:** Neoprene or Natural rubber gloves should be worn when handling this material. Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Wash contaminated clothing and clean protective equipment before reuse. Rinse contaminated skin promptly. Wash skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Solvent
<b>Odor threshold:</b>	NE
<b>pH:</b>	NA
<b>Vapor pressure:</b>	NE
<b>Boiling point/range:</b>	211-411 F
<b>Melting point/ range:</b>	NA
<b>Specific gravity:</b>	0.96 @ 25/25 F
<b>Vapor density:</b>	>1
<b>Flash point:</b>	78 F/ 26 C (TAG CC)
<b>Flammable/Explosive limits - lower:</b>	36.5%
<b>Flammable/Explosive limits - upper:</b>	1.3%
<b>Autoignition temperature:</b>	NE
<b>Evaporation rate:</b>	NE
<b>Solubility in water:</b>	Partially soluble
<b>Partition coefficient (n-octanol/water):</b>	NE
<b>VOC content:</b>	98%

## 10. STABILITY AND REACTIVITY

- Stability:** This material is chemically stable under normal and anticipated storage and handling conditions.
- Hazardous polymerization:** Hazardous polymerization is not known to occur.
- Hazardous decomposition products:** Oxides of carbon.
- Incompatibility:** Avoid strong acids, bases and strong oxidizers. Avoid high temperatures and sources if ignition.

**11. TOXICOLOGICAL INFORMATION**

**Toxicological Information**

Data available for this material and/or its components are summarized below:

**General Product Information:**

Not available for the product.

**Component Data:**

**2-Propanol, 1-methoxy-, acetate**

**LD50/LC50:**

Oral LD50 Rat: 8532 mg/kg, Dermal LD50 Rabbit: >5 gm/kg

**Ethanol**

**LD50/LC50:**

Inhalation LC50 Rat: 20000 ppm/10H, Inhalation LC50 Mouse: 39 gm/m<sup>3</sup>/4H, Oral LD50 Rat: 7060 mg/kg, Oral LD50 Mouse: 3450 mg/kg

**Phosphoric acid**

**LD50/LC50:**

Inhalation LC50 Rat: >850 mg/m<sup>3</sup>/1H, Oral LD50 Rat: 1530 mg/kg, Dermal LD50 Rabbit: 2740 mg/kg

**Butanol**

**LD50/LC50:**

Oral LD50 Rat: 6480 mg/kg

**Cancer Lists**

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
2-Propanol, 1-methoxy-, acetate	No	No	No
Propanol, 1(or 2)-(2-	No	No	No
Ethanol (industrial exposure)	No	No	No
Phosphoric acid	No	No	No
Butanol	No	No	No

**Health Effects**

Hazardous components	Health Effects / Target Organs
2-Propanol, 1-methoxy-, acetate	Irritation-Eyes, Nose, Throat, Skin---Moderate (HE15); Narcosis (HE8); Acute kidney and lung damage (HE4). / Eyes, skin, respiratory system, CNS
Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate	NE
Ethanol	Irritation-Eye, Nose, Throat, Skin---Marked (HE14); Narcosis (HE8); Reproductive impairment (HE5). /Eyes, skin, respiratory system, CNS, liver, blood, reproductive system.
Phosphoric acid	Irritation-Eye, Nose, Throat, Skin---Marked (HE14); Lung edema (HE11); Dental erosion (HE3). / Eyes, skin, respiratory system
Butanol	Irritation-Eye, Nose, Throat, Skin---Mild (HE16); Narcosis (HE8); Explosive, Flammable, Safety (HE18). / Eyes, skin, respiratory system, CNS.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological Information

Data available for this material and/or its components are summarized below:

#### General Product Information:

Not available

#### Component Data:

##### 2-Propanol, 1-methoxy-, acetate

This material is practically non-toxic to fathead minnow (96-hr LC50 161 mg/l) and Daphnid (48-hr LC50 408 mg/l). The theoretical oxygen demand (ThOD) for the alpha-isomer was 1.82 g oxygen/g. The biological oxygen demand (BOD) after 5 days was 0.363 g oxygen/g. After 20 days, the BOD was 1.05 g oxygen/g.

##### Propanol, 1(or 2)-(2-methoxymethylethoxy)-, acetate

This material is practically non-toxic to Daphnia magna (LC50 1,090 mg/l) and fathead minnow (LC50 151 mg/l). This material has a 20-day BOD of 62%. The log Pow is estimated to be 0.8.

##### Ethanol

This material is generally non-toxic to aquatic species with an LC50 greater than 100 mg/l. The LC50 for Daphnia magna is 9200 mg/l. Studies in other species including minnows, worms, snails and aquatic insects show this material to have an LC50 greater than 100 mg/l. Algae has an EC50 value calculated to be greater than 10,000 ppm. This material is generally considered to be readily biodegradable and would not be likely to bioaccumulate.

##### Phosphoric acid

96 Hr LC50 mosquito fish: 138 mg/L

##### Butanol

This material is no more than moderately toxic to lamprey larvae (24-hr LC50 >5.0 mg/l). It is practically nontoxic to goldfish (24-hr LC50 4,300 mg/l), Daphnia magna (24-hr LC50 3,750 mg/l; 48-hr LC50 4,227 mg /l), golden orfe (48-hr LC50 3,520 mg/l), clawed toad (48-hr LC50 1,530 mg/l) and fathead minnow (96-hr LC50 3,670 mg/l). The 8-day no-observable effect level for green algae was 95 mg/l with an EC50 of 8,900 mg/l. This material is considered biodegradable. The BOD in 24 hours by unadapted sludge was 9.3% of the ThOD. The BOD in 23 hours by adapted sludge was 58% of the ThOD. The BOD after 5 days in the AFNOR Test was 33% of the ThOD and in the APHA Test it was 83% of the ThOD. Based on its low n-octanol/water partition coefficient (log Pow 0.61), it is considered unlikely to bioaccumulate.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

*Recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations. Empty containers retain product residue. Note: Chemical additions to, processing of, or otherwise altering this material may render information in this document to be incomplete, inaccurate or otherwise inappropriate for waste management purposes. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.*

#### Disposal Regulatory Requirements:

No EPA Waste Numbers are applicable for this product's components.

*It is the responsibility of the waste generator to determine if the waste meets the definition of a hazardous waste as promulgated at 40 CFR Part 261 subpart C.*

**14. TRANSPORT INFORMATION**

**U.S. Department of Transportation Ground (49 CFR)**

Proper shipping name: Paint  
 Hazard class or division: 3  
 Identification number: 1263  
 Packing group: PG III

**15. REGULATORY INFORMATION**

**United States Regulatory Information**

**TSCA 8 (b) Inventory Status:** All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

**SARA 311/312:**

Acute health hazard	Y
Chronic health hazard	Y
Fire hazard	Y
Reactive	N
Sudden release of pressure	N

**Applicable component data listed below:**

**TSCA 12(b) Export Notification**            None listed

**CERCLA/SARA Section 302 EHS**            None listed

**Section 304 EHS RQ**                          None listed

**CLCRA RQ (LBS)**

Ethanol	100
Phosphoric acid	5000
Butanol	100

**Section 313**

	<b>Category</b>	<b>de minimis concentration</b>
Butanol	313	1.0%

**RCRA CODE**                                      None listed

**CAA 1129(r) TQ**                                None listed

**State Regulations**

<b>State Lists (Components on one or more lists)</b>	<b>CA</b>	<b>NJ</b>	<b>PA</b>	<b>RI</b>	<b>NY</b>	<b>MA</b>	<b>MN</b>
Ethanol	Yes	Yes	Yes	Yes	No	Yes	Yes
Phosphoric acid	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Butanol	Yes	Yes	Yes	Yes	No	Yes	Yes

**California Proposition 65**

This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity:

none

**Canada Regulatory Information**

	<b>WHMIS Status</b>	<b>Hazard class(s)</b>
2-Propanol, 1-methoxy-, acetate	1.0%	B3
Ethanol	0.1%	B2, D2B
Phosphoric acid	1.0%	E
Butanol	1.0%	B2, D2B

**16. OTHER INFORMATION**

**Revision Information**

**Revision Date:** 6/15/2011  
**Supersedes Revision Dated:** 10/24/2007  
**Revision Number:** 2.000  
**Revision Summary:** New format

**Key:** NE = Not Established, NA = Not Applicable

**State Lists reviewed (Sec. 15):**

CA Title 8, §339. The Hazardous Substances List  
NJ Right to Know Hazardous Substance List  
PA Chapter 323. Hazardous Substance List  
RI Rhode Island Hazardous Substance List  
NY Part 597: List of Hazardous Substances  
MA Massachusetts Oil and Hazardous Material List  
MN 5206.400 Hazardous Substances

**Prepared by:** CED

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