

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **500-402 PERMATONE GREEN**

Supplier - Manufacturer **Chemcraft® International Inc.**
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Code 500-402

Synonym PERMATONE GREEN

Chemical Name Not applicable.

Chemical Family Synthetic polymer in organic solvent. (Polymer.)

Chemical Formula Not applicable.

Material Uses Coatings: Surface coatings and finishes.

Product Identification Number (PIN) 1263 PAINT

Section 2. Hazardous Ingredients

Exposure limits

| Name | CAS # | % by Weight | LC ₅₀ /LD ₅₀ | TLV/PEL |
|-----------------------------------|----------|-------------|---|---|
| Methanol | 67-56-1 | 50 - 70 | ORAL (LD50): Acute: 6200 mg/kg [Rat]. 5600 mg/kg [Rat] . DERMAL (LD50): Acute: 15800 mg/kg [Rabbit]. | OSHA (United States). TWA: 200 ppm ACGIH (United States, 2000). TWA: 200 ppm STEL: 250 ppm NIOSH (1997). TWA: 200 ppm STEL: 250 ppm TWA: 260 mg/m ³ STEL: 325 mg/m ³ TWA: 200 ppm 8 hour/hours. STEL: 300 ppm 15 minute/minutes. CEIL: 300 ppm |
| Methyl ethyl ketone | 78-93-3 | 30 - 50 | ORAL (LD50): Acute: 3000 mg/kg [Mouse]. 2737 mg/kg [Rat]. DERMAL (LD50): Acute: 6480 mg/kg [Rabbit]. | ACGIH (United States). TWA: 100 ppm STEL: 150 ppm |
| Propylene glycol monomethyl ether | 107-98-2 | 1 - 5 | ORAL (LD50): Acute: 5660 mg/kg [Rat]. DERMAL (LD50): Acute: 13000 mg/kg [Rabbit]. | |

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

Section 3. Physical Data

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| Physical State and Appearance | Liquid. | | | | |
| Color | Not available. | Odor | Not available. | Taste | Not available. |
| Molecular Weight | Not applicable. | | | | |
| pH (1% soln/water) | Neutral. | | | | |
| Boiling Point | The lowest known value is 64.5°C (148.1°F) (Methanol). Weighted average: 72.65°C (162.8°F) | | | | |
| Melting Point | May start to solidify at -85°C (-121°F) based on data for: 2-Butanone. Weighted average: -93.18°C (-135.7°F) | | | | |
| Critical Temperature | Not available. | | | | |
| Specific Gravity | Weighted average: 0.8 (Water = 1) | | | | |
| Vapor Pressure | The highest known value is 12.2 kPa (91.8 mm Hg) (at 20°C) (Methanol). Weighted average: 11.02 kPa (82.66 mm Hg) (at 20°C) | | | | |
| Vapor Density | The highest known value is 3.12 (Air = 1) (2-Propanol, 1-methoxy-). Weighted average: 1.7 (Air = 1) | | | | |
| Volatility | Not available. | | | | |
| Odor Threshold | The lowest known value is 0.25 ppm (2-Butanone) | | | | |
| Water/Oil Dist. Coeff. | Not available. | | | | |
| Ionicity (in Water) | Not available. | | | | |
| Dispersion Properties | See solubility in water, methanol, diethyl ether, acetone. | | | | |
| Solubility | Easily soluble in cold water, hot water, methanol, diethyl ether, acetone. | | | | |

Section 4. Fire and Explosion Hazard

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| The Product is: | Flammable. |
| Fire Hazards in Presence of Various Substances | Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| Fire Fighting Media and Instructions | SMALL FIRE: Use dry chemical powder. LARGE FIRE: Use alcohol-resistant foam or water spray or fog. Cool containers with water jet in order to prevent pressure build-up, auto-ignition or explosion. |
| Special Remarks on Fire Hazards | Explosive in the form of vapor when exposed to heat or flame. Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition, it emits acrid smoke and irritating fumes. (Methanol) |
| Flash Points | The lowest known value is Closed cup: -6°C (21.2°F). (Tagliabue.). Open cup: -4°C (24.8°F). (2-Butanone) |
| Flammable Limits | The greatest known range is Lower: 6% Upper: 36.5% (Methanol) |
| Auto-Ignition Temperature | The lowest known value is 287°C (548.6°F) (2-Propanol, 1-methoxy-). |
| Products of Combustion | These products are carbon oxides (CO, CO ₂). |
| Explosion Hazards in Presence of Various Substances | Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. |
| Special Remarks on Explosion Hazards | Not available. |

Section 5. Reactivity Data

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| Stability | The product is stable. |
| Decomposition products | Not available. |
| Conditions of Instability | Not available. |
| Incompatibility with various substances | Highly reactive or incompatible with the following materials: oxidizing materials. Slightly reactive or incompatible with the following materials: acids. Non-reactive or compatible with the following materials: reducing materials, combustible materials, metals, alkalis and moisture. |
| Corrosivity | Not available. |
| Special Remarks on Reactivity | Air sensitive. (1-Propanol, 2-methoxy-) |
| Special Remarks on Corrosivity | Not available. |

Section 6. Toxicological Properties

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| Routes of Entry | Dermal contact. Eye contact. Inhalation. Ingestion. |
| Toxicity to Animals | Acute oral toxicity (LD50): 2737 mg/kg [Rat]. (2-Butanone). Acute dermal toxicity (LD50): 6480 mg/kg [Rabbit]. (2-Butanone). Acute toxicity of the gas (LC50): 23500 mg/m ³ 8 hour/hours [Rat]. (2-Butanone). Acute toxicity of the vapor (LC50): 32000 mg/m ³ 4 hour/hours [Mouse]. (2-Butanone). |
| Effects of Acute Exposure | Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (permeator). Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant). |
| Chronic Effects on Humans | CARCINOGENIC EFFECTS: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [Methanol]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Butanone]. Classified 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanol, 1-methoxy-]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to the nervous system. Repeated or prolonged exposure to the substance can produce target organs damage. |
| Special Remarks on Toxicity to Animals | Not available. |
| Special Remarks on Chronic Effects on Humans | May be fatal or cause blindness if swallowed. Animal: embryotoxic, passes through the placental barrier. (Methanol) |
| Special Remarks on Other | Narcotic. (Methanol) |
| Toxic Effects on Humans | |
| Exposure Limits | Not available. |

Section 7. Preventive Measures

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| Personal Protection | Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Impervious gloves. |
| Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Vapor respirator. Boots. Gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate. Consult a specialist before handling this product. |
| Engineering Controls | Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Small Spill | Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. |

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| Large Spill | Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas. Dike if necessary. | |
| Waste Disposal | Waste must be disposed of in accordance with federal, state and local environmental control regulations. | |
| Precautions | Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents. | |
| Storage | Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). | |
| TDG Classification | 3 | |
| PIN | 1263 PAINT | PG: II |
| Special Provisions for Transport | - | |
| Federal and State Regulations | New York release reporting list: Methanol Rhode Island RTK hazardous substances: Methanol Pennsylvania RTK: Methanol: (environmental hazard); 2-Propanol, 1-methoxy- Florida: Methanol Minnesota: Methanol Massachusetts RTK: Methanol; 2-Propanol, 1-methoxy- New Jersey: Methanol; 2-Propanol, 1-methoxy- SARA 302/304/311/312 hazardous chemicals: Methanol SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Methyl Ethyl Ketone: Fire hazard, Immediate (acute) health hazard CERCLA: Hazardous substances.: Methanol; Methyl Ethyl Ketone; | |
| Other Regulations | OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). | |
| Other Classifications | WHMIS (Canada) | Class B-2: Flammable liquid Class D-1A: Material causing immediate and serious toxic effects (Very toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic). |
| | HCS (U.S.A.) | Target organ effects |
| Hazardous Material Information System (U.S.A.) | Health Hazard | * 1 |
| | Fire Hazard | 3 |
| | Reactivity | 0 |
| | Personal Protection | G |
| National Fire Protection Association (U.S.A.) | Health | 1 |
| | Fire Hazard | 3 |
| | Reactivity | 0 |
| | Specific Hazard | |

Section 8. First Aid Measures

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| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs. |
| Skin Contact | Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used. |
| Hazardous Skin Contact | Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention. |

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| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear. |
| Hazardous Inhalation | Move the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention. |
| Ingestion | Do not induce vomiting. Examine the lips and mouth to ascertain if the tissues are damaged, a possible indication that toxic material was ingested. The absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention. |
| Hazardous Ingestion | Not available. |

Section 9. Preparation Information

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| References | -Manufacturers Material Safety Data Sheets. |
| Other Special Considerations | Not available. |
| Related Information | This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR. |

Preparation Information Validated by K. DeBiasi on 2/23/2007.

Verified by K. DeBiasi.

Printed 5/11/2007.

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| Information Contact | Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON. Canada. Phone: 905 885-6388 Fax: 905 885-5097 |
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Notice to Reader

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