

Kerr Italia SpA

MATERIAL SAFETY DATA SHEET

in accordance with communitary directive 2001/58/EC

Section I - Identification of Product and Company

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| Trade Product Name: Acid Etchant | Preparation/Revision Date: 06/03 |
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| Company Name: Kerr Italia SpA | Emergency phone: (+ 41)-91-61.00.639 |
| Company Address: Via Passanti 332 - 84018 Scafati (SA) - Italy | Information phone: 00-800-41-050-505 |

Section II - Composition/Information on Ingredients

| HAZARDOUS INGREDIENTS | % | SYMBOL | R | CAS N. | EINECS N. |
|-----------------------|------|--------|----|-----------|-----------|
| Phosphoric Acid | 37.5 | C | 34 | 7664-38-2 | 231-633-2 |

Section III - Hazards Identification

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| HAZARD CLASSIFICATION | Corrosive |
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Section IV - First Aid Measures

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| Treatment for eye contact: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention. |
| Treatment for skin contact: Immediately flush skin with plenty of water. Get medical attention. |
| Treatment for inhalation (breathing): Remove to fresh air Get medical attention. |
| Treatment for ingestion (swallowing): Do not induce vomitng. Give large quantities of water and get medical attention. |

Section V - Firefighting Measures

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| Suitable extinguishing media: None; not considered to be a fire hazard. |
| Forbidden extinguishing media: Not applicable. |
| Special firefighting measures: None. |
| Unusual fire and explosion hazards: None. |

Material Safety Data Sheet for: **Acid Etchant**

Special protection equipment: **None.**

Section VI - Accidental Release Measures

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| Personal Precautions: Adopt precautions listed in following sections (VII and VIII). |
| Environmental Precautions: None. |
| Reclaiming Methods: Absorb spill with inert material and transfer to suitable container for disposal. |

Section VII - Handling and Storage

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| Handling Precautions: Avoid unnecessary exposure to the product. |
| Precautions in case of Fire and Explosion: At high temperatures toxic fumes of phosphoric acid and phosphorous oxides can be generated. |
| Storage Conditions: Store at room temperature. |
| Suggested container(s): The original container provided by the manufacturer. |
| Indication for Combined Storage: Avoid contact with strong caustics, metals, sulfides and sulfites. |
| Other Precautions: Use according to directions for use. Avoid contact with skin, eyes and soft tissues. |

Section VIII - Exposure controls/personal protection

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| Precautionary Measures | <u>Ventilation</u> Local Exhaust Ventilation: Not Applicable. Special Ventilation: Not Applicable. Mechanical (General) Ventilation: Not Applicable. Other Ventilation: Not Applicable. |
| Limits | TWA: 1 mg/m³ ; TLV: 3 mg/m³ |
| Respiratory Protection | Not Applicable. |
| Hands Protection | Wear impervious gloves to prevent skin contact. |
| Eyes Protection | Approved safety glasses or goggles. |
| Skin Protection | Handle in accordance with good personal hygiene practices. Avoid unnecessary exposure. |
| Other Protective Equipments: | A lab coat can be used. |

Section IX - Physical and Chemical Properties

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| Boiling Point: 100°C | Melting Point: Not Applicable | |
| Vapor Pressure: Not applicable | Specific Gravity: 1.2 g/ml | |
| Evaporation Rate (n-butane= 1): Not Applicable | Vapor Density (air= 1): Not applicable | |
| Solubility in Water: Soluble. | | |
| Appearance and Odor (Physical Form): Odorless dark blue liquid. | | |
| Flash Point: N/A | Upper explosivity limit: N/A | Lower explosivity limit: N/A |

Section X - Stability and Reactivity

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| Stability: Stable. |
| Conditions to Avoid: Not Applicable. |
| Incompatibility (Materials to Avoid): Strong caustics, metals, sulfides and sulfites.. |
| Hazardous Decomposition Products: Toxic fumes of phosphoric acid. |
| Hazardous Polymerization Products: None. |

Section XI - Toxicological Information

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| Carcinogenicity/Teratogenicity: No |
| <p style="text-align: center;"><u>Effects and Hazards of Overexposure (Acute and Chronic)</u></p> <p>Effects and hazards of eye contact: Corrosive. May cause redness, pain and eye burns.</p> <p>Effects and hazards of skin contact: Corrosive. May cause redness, pain and burns.</p> <p>Effects and hazards of Inhalation (Breathing): Inhalation is not an expected hazard unless product is misted or heated at high temperatures.</p> <p>Effects and hazards of Ingestion (Swallowing): Corrosive. May cause sore throat and burns of the mouth and throat.</p> <p>Effects for prolonged Exposure: May cause burns to the respiratory tract, contact with soft tissues may cause burns.</p> |

Section XII - Ecological Information

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| <p>There is no specific information on the product. Use according to good working practices, avoiding release of the product into environment.</p> <p>For Phosphoric acid only:</p> <p>Localized effects: May cause pH variations with damage to aquatic wildlife.</p> <p>Other indications:</p> <p>Water pollution risk class 1 (WGK German) : little hazardous</p> <p>Do not pour the product in large amounts or not diluted in water-bearing strata, in water course or in sewers. Do not pour it not diluted or not neutralized in drainage waters and in connection channels.</p> |
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Section XIII - Disposal Considerations

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| Dispose of according to local regulations. |
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Section XIV - Transport Information

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| SEA TRANSPORTATION | | | | | | | | | |
| IMCO Number | | 8204 | | | | | | | |
| UN Number | | 1805 | | | | | | | |
| Substance(s) determining hazard | | Phosphoric Acid | | | | | | | |
| AIR TRANSPORTATION | | | | | | | | | |
| ICAO/IATA Class | | 8 | | | | | | | |
| Substance(s) determining hazard | | Phosphoric Acid | | | | | | | |
| TRANSPORTATION BY ROAD/RAILWAY | | | | | | | | | |
| RID/ADR Class | 8 | Item Number | 11c | Hazard Identification Number | 80 | Substance Identification Number | 1805 | Hazard Label | 8 |

Section XV - Regulatory Information

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| CLASSIFICATION IN ACCORDANCE WITH EC DIRECTIVES | |
| HAZARD IDENTIFICATION SYMBOL | C |
| R Sentences | |
| 34 | Causes burns. |
| S Sentences | |
| 26 | In case of contact with eyes, rinse immediatly with plenty of water and seek medical advice |
| 45 | In the event of an accident call immediately a phisician (if possible, show him this document). |
| Ingredients determining the label | Phosphoric Acid |

Section XVI - Other Information

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| None |
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CAUTION: PRODUCT FOR PROFESSIONAL USE

The information on this Safety Sheet is based on presently available data and to our best knowledge for the correct handling of the product under normal conditions. Any use of this product in any way not indicated on this Sheet or the use of this product together with any other process/procedure will be exclusively under the user's responsibility.