

Material Safety Data Sheet

Pychlorex[®] 48EC

Date of issue: 30th May, 2009

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| 1) Identification of Substance: | | |
| Product name: | Pychlorex 48EC | |
| Active Ingredient(s): | Chlorpyrifos 480 g/L EC. | |
| ACVM Approval: | P5585 | |
| ERMA Approval: | HSR000171 | |
| Distributed by: | Adria Crop Protection P.O. Box 535 Kumeu 1250, Auckland Ph: 09-412-9817 Fax: 09-412-9807 www.adriacp.co.nz | |
| Emergency Number: | National Poisons Centre 0800 POISON 0800 764 766 | |
| 2) Hazards Identification: | | |
| HSNO Classifications: | 3.1C, 6.1C, 6.3B, 6.4A, 6.9A, 9.1A, 9.2B, 9.3A, 9.4A | |
| Risk Phrases | Harmful by inhalation and if swallowed. Irritating to eyes, respiratory system and skin. Harmful: may cause lung damage if swallowed. | |
| Dangerous product | Highly flammable. In use, may form flammable vapour-air mixture. | |
| Environmental hazard | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | |
| Primary route of exposure | Vapours inhalation. Skin contact. | |
| Symptoms relating to use | | |
| - Inhalation | Cough. Shortness of breath. Breathing difficulties. Headache. | |
| - Skin contact | Redness, pain. May cause immediate skin irritation and blistering. | |
| - Eye contact | Blurred vision. Tears. Burning sensation. Redness, pain. Eye irritant upon direct contact. Risk of damage to eyes. | |
| - Ingestion | Abdominal pain, nausea. Swallowing a small quantity of this material will result in serious health hazard. | |
| 3) Composition Details: | | |
| Chemical identity: | Chlorpyrifos-ethyl | |
| Chemical identity of ingredients: | | |
| Ingredient: | CAS No.: | Content (%w/v) |
| Chlorpyrifos-ethyl | 002921-88-2 | 43.1 to 45.9 % |

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| 4) First Aid Measures: | |
| First Aid: | |
| Skin contact: | Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops. |
| Eye contact: | In case of eye contact, immediately rinse with clean water for 10-15 minutes. Contact ophthalmologist immediately. |
| Ingestion: | DO NOT INDUCE VOMITING. If swallowed, rinse mouth with water (only if the person is conscious). Seek medical attention immediately. For advice, contact the National Poisons Centre on 0800 POISON (0800 764766) or a doctor immediately. |
| Inhalation: | Assure fresh air breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention if breathing difficulty persists. |
| Note to Physician: | Antidote as for organophosphate poisoning. |
| 5) Fire-Fighting Measures: | |
| Flammable Class | This product is flammable. |
| Prevention | Keep away from sources of ignition. No smoking. |
| Extinguishing media | Dry chemical. Water. Carbon dioxide. Foam. |
| Surrounding fires | Use water spray or fog for cooling exposed containers. |
| Special exposure hazards | May form flammable vapour-air mixture. |
| Protection against fire | Do not enter fire area without proper protective equipment, including respiratory protection. |
| Special procedures | Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment. |
| 6) Accidental Release Measures: | |
| Personal precautions: | No smoking. Keep public away from danger area. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. |
| Environmental precautions | Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. |
| Clean up methods | Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers. |
| 7) Handling & Storage: | |
| General | Keep away from sources of ignition - No Smoking. Do not breathe vapours. |

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| Precautions in handling and storage | Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures. |
| Technical Protective Measures: | Use grounded electrical/mechanical equipment. |
| Handling: | Ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. |
| Storage: | Keep in fireproof place. Store in tightly closed, properly ventilated containers away from heat, sparks, open flame. |

8) Exposure Control / Personal Protection:








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| Personal protection | |
| - Respiratory protection | Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended. |
| - Hand protection | Gloves. |
| - Skin protection | If skin contact or contamination of clothing is likely, protective clothing should be worn. |
| - Eye protection | Chemical goggles or face shield with safety glasses. |
| - Ingestion | When using, do not eat, drink or smoke. |
| Industrial hygiene | Provide local exhaust or general room ventilation to minimize dust and/or vapour concentrations. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. |


9) Physical & Chemical Properties:

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| Physical state at 20 °C: | Liquid |
| Colour: | Red |
| Odour: | Aromatic |
| Melting point/boiling point: | - |
| Density: | 1.074 (20°C) |
| Surface tension [mN/m]: | - |
| pH: | 6.2 |
| Flash point [°C]: | 46 |
| Auto Ignition Temperature: [°C]: | 476 |
| Explosive Limits: | - |
| Viscosity: | - |
| Solubility in water | - |

10) Stability & Reactivity:

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| Physico-chemical stability | Stable. |
| Hazardous decomposition products | According to process conditions, hazardous decomposition products may be generated. Thermal decomposition generates: Carbon dioxide. Carbon monoxide. Halogens. Nitrogen oxides. Sulphur compounds. Hydrochloric acid. Phosphate. |

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| Hazardous Reactions | May release flammable gases. |
| Materials to avoid | Strong oxidizers. |
| Conditions to avoid | Open flame. Sparks. Overheating. |
| 11) Toxicological Information: | |
| Acute toxicity | Irritating to eyes, respiratory system and skin. |
| Rabbit dermal LD50 [mg/kg] | 2383 |
| Rat oral LD50 [mg/kg] | 291.5 |
| Rat inhalation LC50 [mg/l/4h] | 2.41 |
| On ingredients | See Heading: Information on ingredients. |
| 12) Ecological Information: | |
| Ecological effects information | R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| LC50 96h fish [mg/l] | 03035 |
| 48 Hour-EC50 - Daphnia magna [mg/l] | 0.0003 |
| On ingredients | See Heading: Information on ingredients. |
| 13) Disposal Considerations: | |
| Disposal:  | Triple rinse container and add residue to spray tank. Return empty container to an AgRecovery collection point for disposal. |
| Empty container precautions: | Avoid contamination of any water supply with chemical or empty container. |
| 14) Transportation Information: | |
| Rail/road (RID/ADR): | UN3017 ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC (Chlorpyrifos (ISO), 48%, Hydrocarbon-solvents (Aromatic)), 6.1 (3), III) Class: 6.1 Packaging Group III UN: 3017    |
| Sea (IMDG code): | UN3017 ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC (Chlorpyrifos (ISO), 48%, Hydrocarbon-solvents (Aromatic)), 6.1 (3), III) Class: 6.1 Packaging Group III UN: 3017 Marine Pollutant    |

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| Air (ICAO/IATA): | <p>UN3017 ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC (Chlorpyrifos (ISO), 48%, Hydrocarbon-solvents (Aromatic)), 6.1 (3), III) Class: 6.1 Packaging Group III UN: 3017 Packing instruction: 611/60L - 618/220L</p> <div style="text-align: center;">  </div> |
| 15) Regulatory Information: | |
| Approved handlers: | This product must be under the care of an approved handler during use. |
| Tracking: | Yes. |
| ACVM controls: | See www.nzfsa.govt.nz/acvm/ for registration conditions. |

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