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| PAYLOAD HAZARD REPORT | | NO: SWAB-3 |
| PAYLOAD: HRF – Surface Water and Air Biocharacterization | | PHASE: II |
| SUBSYSTEM: Biomedical | HAZARD GROUP: Injury/Illness | DATE: Jan 2004 |
| HAZARD TITLE: Use of toxicity level 1 and 2 items. | | |
| APPLICABLE SAFETY REQUIREMENTS: NSTS 1700.7B & ISS Addendum: 209.1b | | <input checked="" type="checkbox"/> CATASTROPHIC <input type="checkbox"/> CRITICAL |
| DESCRIPTION OF HAZARD: Use of fixative agent within swab tubes (max 1 ml) and water archive bags (max 10 mg) could cause eye irritation if it were released into the environment. See attached toxicity assessments. Note: The initial toxicity level of the powder within the water archive bags is 2. Once water is added, the tox level is 1. | | |
| HAZARD CAUSES: 1. Release of fixative agent from swab tube (tox level 1). 2. Release of fixative powder from water archive bag prior to water collection (tox level 2). 3. Release of water/fixative solution from water archive bag following water collection (tox level 1). | | |
| HAZARD CONTROLS: 1.1 The swab tube provides 1 level of containment. The tube is packaged in a sealed bag prior to use and a ziplock bag after use. Swab tube is removed from bag during sample collection. This time is minimal. 2.1 The powder is contained in a sealed water-soluble film bag within the final water collection bag (first and second levels of containment). The final water collection bag is stowed within a ziplock bag prior to and after use (3 rd level of containment). During water transfer into the final bag, the final bag is within a ziplock (only the neck exposed). 3.1 The water/fixative solution is contained in a sealed bag with a capped one-way water valve. The entire water archive bag is placed in a Bitran ziplock bag after water collection. | | |
| SAFETY VERIFICATION METHODS: 1.1.1 Review of design to show two levels of containment is provided. 1.1.2 Review of crew procedures to show sample tube is placed in ziplock after use. 2.1.1 Review of design to show powder is contained in a sealed film bag within the sealed water bag and stowed within a ziplock bag. 2.1.2 Review of crew procedures to show water transfer is conducted within a ziplock with only the neck of the final water bag exposed. 3.1.1 Review of design to show final water bag is a sealed bag that includes a capped one-way water valve. 3.1.2 Review of crew procedures to stow final water bag in Bitran bag after water collection. | | |
| STATUS OF VERIFICATION: 1.1.1 OPEN 1.1.2 OPEN 2.1.1 OPEN 2.1.2 OPEN 3.1.1 OPEN 3.1.2 OPEN | | |
| APPROVAL | PAYLOAD ORGANIZATION | STS |
| PHASE I | | |
| PHASE II | | |
| PHASE III | | |