P.O. Box 14508 St. Louis, MO 63178 USA Phone: 314-771-5765 MATERIAL SAFETY DATA SHEET SECTION 1. - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - -CATALOG #: H7375 HISTAMINE DIPHOSPHATE NAME: SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -CAS #: 23297-93-0 MF: C5H9N3 SECTION 3. - - - - - - - - HAZARDS IDENTIFICATION - - - - - - -LABEL PRECAUTIONARY STATEMENTS HARMFUL HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT. TARGET ORGAN(S): SMOOTH MUSCLE HEART IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING. SECTION 4. - - - - - - - - - FIRST-AID MEASURES- - - - - - - - -IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. WASH CONTAMINATED CLOTHING BEFORE REUSE. SECTION 5. - - - - - - - FIRE FIGHTING MEASURES - - - - -EXTINGUISHING MEDIA WATER SPRAY. CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM. SPECIAL FIREFIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. UNUSUAL FIRE AND EXPLOSIONS HAZARDS EMITS TOXIC FUMES UNDER FIRE CONDITIONS. SECTION 6. - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - -WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY RUBBER GLOVES. SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE. SECTION 7. - - - - - - - HANDLING AND STORAGE - - - - - - - - -REFER TO SECTION 8. SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -CHEMICAL SAFETY GOGGLES. NIOSH/MSHA-APPROVED RESPIRATOR. MECHANICAL EXHAUST REQUIRED. COMPATIBLE CHEMICAL-RESISTANT GLOVES. SAFETY SHOWER AND EYE BATH. AVOID BREATHING DUST.

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AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. HARMFUL SOLID. IRRITANT. SENSITIZER. STORE IN A COOL DRY PLACE. SECTION 9. - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - -APPEARANCE AND ODOR WHITE POWDER PHYSICAL PROPERTIES MELTING POINT: 132 C TO 133 C SECTION 10. - - - - - - - - STABILITY AND REACTIVITY - - - - - - - -INCOMPATIBILITIES STRONG OXIDIZING AGENTS PROTECT FROM MOISTURE. HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS TOXIC FUMES OF: CARBON MONOXIDE, CARBON DIOXIDE NITROGEN OXIDES THERMAL DECOMPOSITION MAY PRODUCE TOXIC FUMES OF PHOSPHORUS OXIDES AND/OR PHOSPHINE. SECTION 11. - - - - - - - TOXICOLOGICAL INFORMATION - - - - - -ACUTE EFFECTS HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. CAUSES IRRITATION. MAY CAUSE ALLERGIC REACTION. TARGET ORGAN(S): SMOOTH MUSCLE HEART SECTION 12. - - - - - - - ECOLOGICAL INFORMATION - - - - -DATA NOT YET AVAILABLE. SECTION 13. - - - - - - DISPOSAL CONSIDERATIONS - - - - - -DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EOUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS. SECTION 14. - - - - - - - TRANSPORT INFORMATION - - - - - - -CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION. SECTION 15. - - - - - - - REGULATORY INFORMATION - - - - - - - -EUROPEAN INFORMATION CAUTION: SUBSTANCE NOT YET FULLY TESTED. HARMFUL R 20/21/22HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. R 36/37/38 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. R 42/43 MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT. S 26 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. S 36 WEAR SUITABLE PROTECTIVE CLOTHING. SECTION 16. - - - - - - - OTHER INFORMATION- - - - - - - - - -THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH, FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE. COPYRIGHT 2001 SIGMA-ALDRICH CO. LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY