

## MATERIAL SAFETY DATA SHEET

REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

DATE PREPARED: 05-31-2007 SECTION 1. ----- CHEMICAL IDENTIFICATION-----CODE #: HD0147 NAME: 50% FORMAMIDE HYBRIDIZATION COCKTAIL IV SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - -CHEMICAL NAME CAS # RTECS # % FORMAMIDE 75-12-7 LQ0552000 50 WATER 7732-18-5 ZC0110000 12-15 SODIUM CHLORIDE 7647-14-5 VZ4725000 10-18 SODIUM CITRATE 6132-04-3 GE8300000 8-10 DEXTRAN SULFATE 9011-18-1 HH9290000 20-25 DENHARDTS SOLUTION N/A N/A .5-2 PHOSPHATE BUFFER N/A N/A 2-5 SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION. SECTION 3. ----- HAZARDS IDENTIFICATION -----LABEL PRECAUTIONARY STATEMENTS IRRITANT IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. SUSPECTED TERATOGEN TARGET ORGAN(S): BLOOD CNS IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE. TAKE OFF IMMEDIATELY ALL CONTAMINATED 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 NON-COMBUSTIBLE. USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE SPECIAL FIREFIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO

EMITS TOXIC FUMES UNDER FIRE CONDITIONS. SECTION 6. ----- ACCIDENTAL RELEASE MEASURES------WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY RUBBER GLOVES. ABSORB WITH AN INERT MATERIAL AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL. 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. COMPATIBLE CHEMICAL-RESISTANT GLOVES. NIOSH/MSHA-APPROVED RESPIRATOR. SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED. DO NOT BREATHE VAPOR. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. KEEP TIGHTLY CLOSED. STORE IN A COOL DRY PLACE. SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----APPEARANCE LIQUID. SECTION 10. ------STABILITY AND REACTIVITY ------**INCOMPATIBILITIES** STRONG OXIDIZING AGENTS HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS TOXIC FUMES OF: CARBON MONOXIDE, CARBON DIOXIDE NITROGEN OXIDES SECTION 11. ----- TOXICOLOGICAL INFORMATION ------ACUTE EFFECTS MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION. MATERIAL IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. CAUSES SKIN IRRITATION. TARGET ORGAN(S): BLOOD CNS TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. SECTION 12. ----- ECOLOGICAL INFORMATION -----DATA NOT YET AVAILABLE. SECTION 13. ----- DISPOSAL CONSIDERATIONS ------OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS. SECTION 14. ----- TRANSPORT INFORMATION -----NOT REGULATED. SECTION 15. ----- REGULATORY INFORMATION -----EUROPEAN INFORMATION CAUTION: SUBSTANCE NOT YET FULLY TESTED. IRRITANT R 36/37/38 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN. R: 60

## MAY CAUSE HARM TO THE UNBORN CHILD.

S: 36/37/39

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION. SECTION 16. ----- OTHER INFORMATION-----

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