Product ID: HYDROGEN PEROXIDE SOLUTION 50% H2O2 MSDS Date:06/24/1998 FSC:6810 NIIN:01-353-4876 Status Code:A MSDS Number: CLBLJ === Responsible Party === Company Name: HACH COMPANY Address:5600 LINDBERGH DR Box:389 City:LOVELAND State:CO ZIP:80539 Country:US Info Phone Num:970-669-3050 Emergenc y Phone Num:303-623-5716/515-232-2533 Resp. Party Other MSDS Num.: M00478 CAGE:91224 === Contractor Identification === **Company Name: ADI SERVICES** Address: ROUTE 3 BOX 94L **Box:UNKNOW** City:MARTINSBURG State:WV ZIP:25401-9533 Country:US Phone:304-263-7722 Contract Num:SP0450-01-M-D889 CAGE:0GD25 Company Name: HACH CO Address:5600 LINDBERGH DR Box:389 City:LOVELAND State:CO ZIP:80539 Country:US Phone:970-669-3050/ 303-623-5716 CAGE:91224 Company Name: HACH COMPANY Address:100 DAYTON RD. Box:907 City:AMES

State:IA ZIP:50010 Country:US Phone:800-227-4224 CAGE:4T252

Ingred Name:HYDROGEN PEROXIDE CAS:7722-84-1 RTECS #:MX0900000 Minumum % Wt:45. Maxumum % Wt:55. Other REC Limits:NONE RECOMMENDED OSHA PEL:1 PPM ACGIH TLV:1 PPM

Ingred Name:OTHER COMPONENTS (TYPE NOT SPECIFIED) &It; Wt:.1 Other REC Limits:NONE RECOMMENDED

Ingred Name:DEMINERALIZED WATER CAS:7732-18-5 RTECS #:ZC0110000 Minumum % Wt:45. Maxumum % Wt:55. Other REC Li mits:NONE RECOMMENDED

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic: TARGET ORGANS: NONE REPORTED. EYE CONTACT: CAUSES EYE BURNS. SKIN CONTACT: CAUSES BURNS. SKIN ABSORPTION: NONE REPORTED. INGESTION: MAY CAUSE: BURNS OF THE MOUTH AND ESOPHAGUS, ABDOMINAL PAIN. HYDAROG EN PERXIDE DECOMPOSES IN THE BOWEL BEFORE ABSOR PTION YIELDING LARGE VOLUMES OF OXYGEN WHICH MAY CAUSE THE BOERL TO RUPTURE. INHALATION: CAUSES SEVERE IRRITATION OF RESPIRATORY TRACT. CHRONIC EFFECTS: NONE REPORTED. Explanation of Carcinogenicity: THIS PRODUCT DOES NOT CONTAIN ANY OSHA LISTED CARCINOGENS. IARC GROUP 3: NON-CLASSIFIABLE. THIS PRODUCT DOES NOT CONTAIN ANY NTP LISTED CHEMICALS. ADDITIONAL CANCER/REPRODUCTIVE TOXICITY INFORMATION: CONTAINS: AN EXPERIMENTAL MUTAGEN. Effects of Overexposure: CAUSES BURNS; DE

COMPOSES IN THE BOWEL BEFORE ABSORPTION YIELDING LARGE VOLUME OF OXYGEN WHICH MAY CAUSE BOWEL TO RUPTURE. Medical Cond Aggravated by Exposure: PRE-EXISTING: EYE CONDITIONS. SKIN CONDITIONS. RESPIRATORY CONDITIONS. First Aid: EYE CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES, CALL PHYSICIAN, SKIN CONTACT: WASH SKIN WITH PLENTY OF WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING. CALL PHYSICIAN IMMEDIATELY. INGESTION: DO NOT INDUCE VOMITING. GIVE 1-2 GLASSES OF WATER. CALL PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. INHALATION: REMOVE TO FRESH AIR. GIVE ARTIFICAL RESPIRA TION IF NECESSARY, CALL PHYSICIAN. Lower Limits:NA **Upper Limits:NA** Extinguishing Media: USE MEDIA APPROPIRATE TO SURROUNDING FIRE CONDITIONS. Fire Fighting Procedures: AS IN ANY FIRE, WEAR SELF-C ONTAINED BREATHING APPARATUS PRESSURE-DEMAND AND FULL PROTECTIVE GEAR. CONTAINERS CAN BUILD UP PRESSURE IF EXPOSED TO HEAT. Unusual Fire/Explosion Hazard: MAY REACT VIOLENTLY WITH: COMBUSTIBLE MATERIALS, REDUCERS, ALCOHOLS, MECHANICAL IMPACT: MIXTURES OF HDROGEN PEROXIDE AND ORGAINC MATERIAL ARE DETONATABLE UPON FIRE OR IMPACT. Spill Release Procedures: REMOVE ALL COMBUSTIBLE MATERIAL FROM SPILL AREA. ABS ORB SPILLED LIQUID WITH NON-REACTIVE SORBENT MATERIAL. STOP SPILLED MATERIAL FROM BEING RELEASED TO THE ENVIRONMENT. DIKE LARGE SPILLS TO KEEP SPILL ED MATERIAL FROM ENTERING SEWAGE AND DRAINAGE SYSTEMS OR BODIES OF WATER. "SEE OTHER INFO" Neutralizing Agent:SODA ASH.

Handling and Storage Precautions:HANDLING: AVOID CONTACT WITH EYES, SKIN, CLOTHING. DO NOT BREATHE VAPORS. WASH THOROUGHLY AFTER HANDLING. M AINTAIN GENERAL INDUSTRIAL HYGIENE PRACTICES WHEN USING THIS PRODUCT. STORAGE: KEEP AWAY FROM OXIDIZABLE MATERIUALS, COMBUSTIBLE MATERIALS. STORE AWAY FROM AKLALIES, METALS, REDUCERS. Other Precautions:STORAGE: AVOID CONTAMINATION BY ORGANIC MATERIALS. PROTECT FROM EXPOSURE TO DIRECT SUNLIGHT. EMPTY CONTAINERS: RINSE THREE TIMES WITH AN APPROPRIATE SOLVENT. DISPOSE OF EMPTY CONTAINER AS NORMAL TRA SH.

======= Exposure Controls/Personal Protection ==========

Re

spiratory Protection: USE A FUME HOOD TO AVOID EXPOSURE TO DUST, MIST OR VAPOR.

Ventilation: USE A FUME HOOD TO AVOID EXPOSURE TO DUST, MIST OR VAPOR. LABORATORY FUME HOOLD.

Protective Gloves: DISPOSABLE LATEX GLOVES.

Eye Protection:CHEMICAL SPLASH GOGGLES.

Other Protective Equipment: HAVE AN EYEWASH STATION NEARBY. HAVE A SAFETY SHOWER NEARBY. DISPOSABLE LAB COAT.

Work Hygienic Practices: MAINTAIN GENERAL INDUSTRIAL HYGIENE PRACTICES WHEN USING THIS PRODUCT

Supplemental Safety and He

alth

AVOID CONTACT WITH EYS, SKIN, CLOTHING. DO NOT BREATHE MIST/VAPOR. WASH THOROUGHLY AFTER HANDLING. KEEP AWAY FROM COMBUSTIBLE MATERIAL, ALKALIES, OXIDIZING MATERIALS. *INTENDED USE: LABORATORY REAGENT.

HCC:D3 Boiling Pt:=113.9C, 237.F Melt/Freeze Pt:M.P/F.P Text:ND Vapor Pres:18.3 Spec Gravity:1.196 pH:1-3 Evaporation Rate & amp; Reference: